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STATE MEDICINE.*

ANNUAL ORATION.

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CHAPEL HILL, NORTH CAROLINA.

I have selected as my topic the gravest social problem that confronts our profession today. At every gathering of doctors the question of State Medicine casts its menacing shadow across the threshold of their thoughts. This is a day of unrest. The medical press is full of apprehension; the lay press is flooded with criticism. We look back on a Golden Age when the family physician was the trusted counsellor, the best friend of all his community; and we look ahead at the gathering clouds of a storm that threatens to sweep away the private practice of our profession. Are the complaints mere growing pains, or are they the obstetric throes that will usher in a new order? We have a long and honored past. What shall be our future?

The thoughtless optimist may say, "God's in His Heaven, all's right with the world," but this does not absolve us of the obligation to recognize the problem and seek its solution. If we resent discussion of the matter, the fault must lie in us. Time does not permit, at this moment, a discussion of all the details, but we may consider the fundamentals. If our consciences are clear, we may face the situation fearlessly and without prejudice, and we may begin with the slogan, "The patient's rights are paramount"; for the doctor is ordained for the patient, not the patient for the doctor. Too often we are prone to think of him as our private property.

The indictments against us may be summarized under two counts: (1) inadequate service, and (2) excessive costs. We reply that (1) medical service is better today than ever in the past, and that (2) the doctor's compensation is inadequate, not comparable to the returns in other spheres of human endeavor. Here we have a paradox. Both the charges are true, and our defense is equally true.

The history of medicine shows a slow development. In the evolution of the primitive witch doctor into the present man of science, we find long eras of stagnation, alternating with brief but brilliant periods of advance. Medicine was conceived and born in the ancient caves of darkness and superstition; it spent a long infancy in swaddling clothes of magic and mysticism; it passed through the vicissitudes of childhood and adolescence in parti-colored garments of empiricism and alchemy; today, in its young maturity, it clings to some of the toys and baubles of early years and sometimes masquerades in its discarded habiliments, but for the most part it wears the sober dress of modern science. We are passing today through the most brilliant of all our periods of progress. It is common knowledge that the past century has added more to scientific medicine than all

*Annual Oration. Presented before the Public Meeting at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 12, 1931.

the accumulation of previous ages. Our recent graduates have a stock of scientific lore far beyond that of the leaders in the past; when to this is added mature experience, our service to our patients is far superior to the best of former days.

If this be true, then why the charge of inadequate service? It is because efficiency and cost are inextricably entangled. The highest quality of service exists, but it is not available to all. It is the old puzzle of supply, demand and distribution. The demand is large, the supply is insufficient, the distribution is imperfect. The problem was simple when one man could carry all the necessary equipment under his hat and in his hand bag; but the complexities of modern practice require hospitals and laboratories and much elaborate and expensive paraphernalia. Moreover, the vastness of the intellectual field and the limitations of the human mind make specialism a necessity. In this complicated situation costs mount high and imperfections multiply.

Here in the bosom of the family we may with propriety speak freely of our faults. The very fields of science which we so carefuly culture and of which we so proudly boast are fringed with weeds, and tares and mingled with the grain. We may speak properly of scientific medicine, but medicine is not and can never be a science. It is a highly complicated art, using all the sciences as tools; he who attempts to practice it solely as an art is a fakir, and he who practices it solely as a science is a fool and a failure. We need not dwell upon the occasional charlatan in our midst; he is unimportant in the problem under consideration. But in this day of scientific precision, honest practitioners often neglect the art of medcine; they tend to become mechanized, to "substitute glassware for brains," to subordinate keen observation and clear clinical thinking to laboratory tests and to mere records of instruments.

We specialize too much; too early and too narrowly. None would decry the wonderful achievements of the specialties. They are choice grafts upon the parent medical tree, and they yield a luscious fruit; but they require careful selection and judicious pruning. They must not bear too early nor grow too rankly, and their number must be limited, lest they sap the life of the root that gives them sustenance. The well trained general practitioner can do all that is necessary to diagnose and treat over 95 per cent of our cases. If he can not make the simpler laboratory tests and do much of the simpler clinical work that now goes to specialists, he is not competent to practice medicine at all. Only the more complicated matters should be referred. These constitute but a small percentage of illnesses; yet about one third of our doctors call themselves specialists, because the financial returns are better and because the life is less strenuous. It is not entirely a joke when it is said that a specialist is "one who has his patients trained to become ill only in office hours, while a general practitioner is likely to be called off the golf course at any time." How often do we see a youngster, fresh from medical school, with only a brief hospital service, announcing himself as a surgeon, an internist, an endocrinologist or what not—a status that should be attained only after ripe clinical experience. Such a specialist, lacking a broad medical background, develops a spirit of arrogant self-assurance, but fails to attain the true heights of efficiency. This reacts upon the general practitioner who often develops an inferiority complex, and, both to his own and to his patient's detriment, "parcels him out" to half a dozen confreres. This tends to destroy the intimate personal relation between doctor and patient that has so high a psychic value in therapeusis, and it rouses in the patient a just resentment at the added expense. Truly, "money is the root of all evil."

We hospitalize many patients needlessly. The facilities for diagnosis of obscure conditions and for treatment of many severe

illnesses can be obtained better, or more cheaply, in hospitals than in most private homes; but only too often, in subjecting patients to hospital expense, we are consulting our own convenience rather than the needs of the case.

There are some whose days of study cease early in their careers. They attend no medical meetings, they do not visit hospitals and clinics, their books are out of date, their journals are the advertising manuals of drug manufacturers. The cause may be indolence or indifference or poverty, but the results are the same.

These are some of our faults. We do things that we ought not to do, and we leave undone things that we ought to do; nevertheless, though our health may be impaired, there is still vigor in us. Most of us are not content with placebos. We are ready to study the symptoms and apply the remedy, thought it be drastic medication or radical surgery. We are striving earnestly to improve our service, and success will surely crown our efforts.

It is not our professional failures, however, that form the chief basis for the present discontent. The public is not stirred so much by our inefficiencies as by the high cost of illness, and we are less worried by our own imperfections than by our inadequate rewards.

Our lives are bound in close communion with those of our fellow citizens. We live in an intricate maze of antagonistic rights and interests. Civilization is built upon a curious mixture of selfishness, generosity and cooperation. Without the driving energy of self interest, we should stagnate in a placid pool of lethargy; without the restraining influence of altruism, our progress would be swamped in a seething torrent of constant conflict; without the directing hand of coordinated effort, advance would fail before the fitful winds of individual caprice. It is especially the power of cooperation that distinguishes the civilized man from the savage; and the more complex the social order becomes, the more numerous and the more difficult are the necessary compromises and adjustments. Certain items in our generally accepted social philosophy are directly applicable to our present medical problem: (1) each individual is entitled to fair remuneration for his labors, (2) community rights take precedence over those of any individual or class, (3) the sick, the weak and the needy are a proper charge upon the health, the strength and the wealth of their neighbors. Let us try to apply these principles to the subject of discussion.

The education of a physician (premedical, medical and hospital service) requires from seven to ten of the best years of his youth. The cost in actual money may be conservatively stated as $10,000. To this sum should be added at least an equal amount which he might have earned in those years at almost any sort of labor. No other profession or business requires so great an outlay. Common justice demands that the doctor receive proper compensation, not only for his daily services but also as dividends upon his heavy investment. Under present conditions only a small percentage of us receive such compensation.

The necessary costs of sanitation and of medical care, especially in conditons requiring hospitalization or its equivalent, have increased enormously in recent years. This is due partly to actual increased cost of service, but, even more to the fact that the public has been trained to expect and demand a better quality and a greater quantity of service than in the past. The total wealth of the country has increased to an equal or even greater extent, but neither wealth nor illness is or ever will be evenly distributed. We have a few paupers and a few millionaires; we have a considerable number of well-to-do people; but the vast majority are poor or of moderate means. Sickness is no respecter of persons, but it tends to concentrate among those in the lower economic strata;

and even there some families are stricken while others escape. Per capita wealth and per capita costs do not tell the story. The average medical bill per family may not exceed $50 or $60 a year, but the actual bill for the actual family may often reach into the hundreds or thousands of dollars. For the average American income a charge of $50 is trivial, but for the actual wage earner it is often excessive, while the larger cost of prolonged illness is absolutely beyond his power to pay. Charity must step into the breach, or the doctor must remain unpaid, or the proud and independent must suffer without proper attention. A baby may represent a very high value at a relatively low price, but many a longing couple is childless because they cannot afford the investment. In considering this matter from the patient's standpoint, we must bear in mind that, in addition to the doctor's fees, he must often meet an equal or even greater expense for drugs and nursing and hospital care.

The situation is unsatisfactory. The doctor is underpaid; the patient is overburdened with debt and is often inadequately served. And yet modern medical knowledge offers marvelous possibilities of accomplishment. "Social sagacity has not kept pace with scientific and material progress." How can we coordinate supply and demand and distribution? If we accept the aphorisms that "the health of the people is the greatest of national assets" and that "the public health is the first duty of the statesman," then it follows that the best of sanitation, the best of personal hygiene and the best of medical care in illness should be available to every citizen. As a corollary to this we may add that the community should bear the burden of cost, not as a charity but as a public investment. Community interests and human sympathy alike demand that the healthy bear a part of the load of the sick, that the wealthy carry a part of the burden of the poor. How can this be done without offending that fine sense of independence that constitutes the most valued possession of a free people? Shall we attain the desired end through sickness insurance or State Medicine or some other form of socialistic effort?

We take pride in our intense individualism. This is the natural accompaniment of a strong, aggressive and independent spirit. We love to speak of the inalienable right to life, liberty and the pursuit of happiness; and we sometimes think that this means pure individualism. When we utter that great phrase, however, we should follow it with the later phrase concerning government of the people, for the people, by the people. To most of us the mere word socialism is anathema. The term is apt to bring to our minds a wild eyed soap box orator who would rather talk than work, or an ignorant and inefficient workman envious of his more capable fellows, or perhaps a parlor theorist who evolves impracical Utopias in the seclusion of his study. We need not waste our time thinking of such people. There are others of a saner and more philosophical bent who preach a gradual, but ultimately extreme, extension of governmental agencies. With them we can agree in many general principles, though we may differ as to the extent to which the process can and should be carried. In a very real sense every law abiding citizen of a civilized country is a Socialist. We differ only in degree.

In a primitive society every individual, or at least every family is self contained. His shelter, his clothing, his food, everything he uses is "home made." He may live with the tribe for protection or for gratification of his gregarious instincts, but he can separate from his fellow men and still live with but little change in his material comfort. Some simple commerce may be conducted and some simple government may exist, but in general an extreme individualism may obtain. In modern civilization the individual is not lost; his efficiency is still of the utmost importance,

but his efforts must be co-ordinated with those of others. He is one of the threads in a closely woven fabric of society. His whole life depends upon others. Today not one of us could feed or clothe or shelter himself alone, much less obtain the multitude of other things that have become necessities. Life would be unendurable, if not actually impossible, without extensive organization of every sort of business and extensive restraint or control of these by governmental agencies. This applies in some measure to almost every field of activity. This is really socialism. Unconsciously we have come to approve of much that in former years we denounced. Our postal service, our public school system, our public santitation, our medical practice acts are a few familiar examples. Within the memory of some of us, certainly within the memory of our fathers, each of these things was considered dangerously radical. The real question is not "whether," but how far and how fast we must socialize.

In medicine our greatest achievements have been in prevention of disease. Most of this has been through a socialistic application of scientific knowledge. Individuals have pointed the way, but it is public organization that has banished yellow fever from our land, has halted the threatened spread of bubonic plague, has brought typhoid fever to the vanishing point over wide areas, and has accomplished countless other benefits of which we all approve.

Is it necessary or is it expedient to apply this principle to curative medicine? Our individual interests as physicians must be subordinated to the real needs and welfare of the public. A partial application is of ancient and honored usage. Free hospitals were in existence two thousand years ago. No well conducted hospital can be supported upon the fees that the poor, the near-poor and the people of moderate means can afford to pay. In the past few years our public hospitals have increased astonishingly, and over 60 per cent of the beds are supported by public funds, national, state or municipal, and many more are maintained by private philanthropy. It is hardly possible to estimate the benefits these confer on the public, but still the needs are far from filled. Country districts and small communities are almost barren of hospital service. These institutions are both a benefit and a detriment to the doctors. They afford us facilities for work that we could not otherwise obtain, but they also call for much unpaid service from us.

The trend in every civilized country is against strict individualism in medical practice. It may astonish you, for it certainly astonished me, to learn that in Germany today only five per cent of the physicians are in genuine private practice; 95 per cent receive their remuneration from the State or the universities or the hospitals or the insurance organizations. In Denmark and Holland sickness insurance, closely directed by the State, dominates practice. In England the panel system is steadily gaining strength, and the British Medical Association is changing from opposition to support of that plan. In this country the movement is evidenced by the stadily increasing scope of Board of Health activities, by the establishment of pay clinics, by the development of local health associations, and by the growth of medical services in large industrial organizations. These changes have come in response to genuine needs, but they do not fully nor properly meet those needs. They do not reach all the people who need them; they are often inefficient, sometimes actually dangerous; the various activities are not coordinated and never can be coordinated under the present methods of their development; they lack the professional guidance that we might have given them but have withheld. The movement will continue to grow. It is both to our interest and to that of the public that we aid in formulating a comprehensive plan that will give the best

possible medical service and will do justice to all.

Ideals are rarely attainable, but high accomplishment is only possible with high ideals as our goal. Let us try to draw, in outline, a picture of an ideal socialistic medical service, available to all, designed primarily for the patient, but just also to the physician. It must be in accord with the spirit of organization that is the ruling force in our highly complex social structure. Private organization may be more efficient in business management than a governmental bureau, but that efficiency is for the profit of the few not for benefit of the many. Most of the claims for that efficiency comes from those who wish to make the profit. Private organization in medical matters will not reach all the people, nor can it operate all the different phases of medical affairs, nor coordinate the different kinds of service. This system must be conducted by, or at least extensively controlled and directed by State agencies.

The maintenance of health depends upon personal hygiene, public sanitation and curative medicine. Our existing knowledge is sufficient to yield wonderful results, but only at tremendous expense. This can not be met individually by those in need, but can be easily paid by the public collectively. In our ideal plan hospitals and laboratories, adequate to the needs and accessible to the people of each community, would be developed at public expense. Medical men, trained at public expense and maintained by p u b l i c funds, would be distributed through these hospitals according to the needs of the population. Consultants and specialists, drawn from the more experienced and more skillful men, would be stationed at strategic points. Among this corps of specialists would be an adequate number charged with sanitary administration. Opportunities for graduate s t u d y would be afforded, and utilization of such opportunities would be required. Periodic examination for promotion and for continuance in the service would eliminate the unfit and indolent. Remuneration might be upon a fee basis, but probably salaries would be more practicable. The whole service would be free to the public. The organization and direction would be under the charge of medical men.

No ban would be placed upon private practitioners, but both they and their private hospitals would be required to measure up to the official standards. The bulk of the people would be well cared for and would be well satisfied with the public service, but there would probably always be a wealthy group who would prefer the independent practitioner whose value they would gauge by the size of his fees. Medical aspirants for this class would not be lacking; but with the gradual perfecting of the public organization this group would become progressively smaller.

Why should we object to such a plan? Behind all human actions there always lies a mixture of good and bad, selfish and unselfish motives. Many have a serious fear that the quality of our work would deteriorate, but in all our discussions on this subject the element of self interest looms large. In our development from ancient days we have gathered a great Tradition of Altruism, of unselfish service to humanity without thought of personal gain. We give more free service than any other class of men, not because we are better than they, but because we are bound by our Tradition and because our work brings us in constant contact with human misery. We usually do this cheerfully (and boastfully), but we often complain of the injustice of the burden and would gladly ease our tired shoulders. We are justly proud of our noble inheritance, but we must not forget that we have also a legacy of cant and conceit and conservatism. We almost believe in a Divine Rights of doctors. We evince this in our constant self-praise, in our sensitive resentment of crit-

icism, in our indignation at any encroachment upon our prerogatives. We sometimes mistake the pale glow of tradition or the blinding glare of success for the clear light of high ideals. To the highly successful physician with a large and lucrative practice, the thought of a mere salary is naturally not appealing. The indolent doctor who has ceased study and whose practice depends upon his personality and upon the medical ignorance of the public resents interference with his inactivity. Most of us are in neither of those classes, but we are borne down by the inertia of conservatism; we cling to our desire for independence, and we fear a lowering of our economic status. Probably it is because of these fears and prejudices that we are prone to believe that State Medicine would destroy research initiative and would lower professional standards. Undoubtedly competition is a great incentive to effort, but this need not be lacking in a salaried profession. Honest and ambitious men work as faithfully and effectively for salaries as for independent fees. The work itself is the real stimulus; moreover, freedom from the harassing uncertainties of collections permits more whole hearted devotion to professional duties. The greater part of today's medical research and much of the finest clinical work is done by salaried men. Is it necessary to cite in evidence such organizations as the Mayo Clinic and the Rockefeller Foundation and many other lesser bodies? Or need we mention such individual names as Pasteur and Welch and Gorgas and Reed and hosts of others? The fear of lowered efficiency is unfounded.

Our fears that we would be reduced to penury have a scanty basis. The large incomes of the few would be much reduced. The pitifully small incomes of many would be increased. The great majority of us would probably stand financially about as we do today, and we would have a greater feeling of security. We would certainly be in a far better position under State Medicine than we would be in contract jobs for privately controlled sickness insurance companies or industrial corporations. These promise to dominate the situation unless the State takes the field.

The serious problem before us is not whether there shall be a change in our medical system. That is assured. The real question is what form shall that new system take, how rapidly shall it be developed, and who shall be its organizers. This calls for careful planning by our best minds and for a strenuous campaign by our most energetic leaders. The challenge is before us. How will organized medicine meet it?

My personal taste is strong for the old regime. I believe that is true of most of us, but the public's will can not be denied. Some form of socialized medicine is inevitable. Without the wisest guidance it may bring medical chaos for the public and industrial slavery for us. We are at a fork in the road. We and the public are inseparably bound together. We must take the same route. Shall we be like Alice in Wonderland and say that we do not know nor care which way we go? If so, the public may draw us to destruction. The great movement has gained momentum. We can not check it, but we may direct its course. Let us not justify the charge that we are "like a cross dog on a door step, basking in the light of our Tradition and snapping at every passing shadow." The Old Order is passing away. Let us greet the New Order with cheerful courage and faith, and let us take the lead in guiding it along the best and safest paths into the Portals of the New Day.

RADIOLOGY AS A SPECIALTY OF MEDICINE.*

GEORGE P. SIMS, M. D.,

GULFPORT, MISS.

The practice of radiology, which embraces the use of radiant energy for diagnosis and treatment—the roentgen-rays for both, and radium for the latter—although one of the youngest branches, has shown most rapid advances in improvement of technical procedures as well as practical application of general medical knowledge in diagnostic interpretation and correlation of the results of the treatment of various diseases. Radiology has now progressed from the experimental stage of comparatively few years ago to the status of an exact science, but it is by no means one hundred per cent accurate, which I believe is true of any laboratory procedure. However, we can logically expect further advances as radiologists are better trained, and general practitioners come to realize the great value of radiology in the diagnosis and treatment of pathological conditions.

We have outgrown the era in medicine when the general practitioner dabbled with radiant energy, more or less seriously, and for the most part as a hobby and diversion. Therein lies great danger, not only to the physician but also to his patient, resulting in useless work, faulty diagnosis, and poor results in treatment. Wherever this sort of thing continues, the layman soon understands that something is wrong, and the entire field of radiologic practice is brought into disrepute. If the general physician has had sufficient specialized training to enable him to do competent practice in the field of radiology in conjunction with his other work, the patient should and will be satisfied, but the ownership of a few milligrams of radium, or a roentgen-ray machine and a few technic charts alone does not qualify any of us to practice one of the most highly specialized branches of medicine.

It is often embarrassing to the radiologist, and the general physician to a greater degree, when the latter states an opinion which can not be confirmed and must later be corrected by the radiologist.

The radiologist must be well trained in general medicine, with particular attention to gross pathology. In addition, he should have a long period of special training to enable him to care for the patient adequately in all diagnostic and therapeutic procedures.

As to roentgenology, the technical procedures for diagnostic films are not difficult and need be carried out only under the supervision of the roentgenologist. Contrary to the opinion of some, the roentgenologist is not a "glorified technician," and the diagnosis is not written in plain, easily interpreted words on the dry film. Not until the film is completed does the real work of the roentgenologist begin. He must evaluate the clinical facts concerning the patient and the shadows which are presented in the roentgenograms or roentgenoscope, and correlate these findings in the light of good sound reasoning, rather than "this case looks like one I have seen before."

Radiology occupies a peculiar position among the specialities of medicine. It is, by far, the broadest in its scope. It is brought into every day contact with all of the other specialties and requires a good working knowledge of these specialties—as obstetrics, gynecology, internal medicine, surgery, neurology, urology, orthopedics, dermatology, gastroenterology, and others. The radiologist is constantly in consultation with other specialists, without encroaching upon their respective fields. He is not limited to any one system or region of the body. Thus he cor-

*Chairman's Address, presented before the Section on Radiology at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

rectly could be styled "general practitioner-radiologist." But, more than a general practitioner, he must be somewhat of a physicist as well as a physician, must have some knowledge of electricity, and a a mechanical flair.

To recapitulate: great advances have been made in the field of radiology, but these wi.l be greater when radiologists are better trained, and when general practitioners do not lower the standards of radiologic practice by entering a field in which they are not well trained or well qualified; technical procedure is of least importance—the radiologist is not a "glorified technician" he must be well trained in general medicine, in the use of radiant energy and physics; the radiologist occupies a peculiarly comprehensive position in medicine in that his field is intimately related to all of general medicine and the specialties, and is not limited to any one organic system or region of the body.

MEMORIAL SERVICE.*

OSCAR W. BETHEA, M. D.

NEW ORLEANS

At this busy season we have left our several fields of activity and gathered ourselves together that we might become better laborers in our chosen work, and better serve humanity. But—

"Some we have loved, the loveliest and best
That from his vintage rolling time hath pressed
Have drunk their cup a round or two before,
And one by one crept silently to rest."

It is fitting that we should pause thus early in our united effort, and pay tribute to those friends and fellow servants who have gone to render their final account of the talents that an al'-wise Providence had entrusted to their keeping.

We cannot weigh the burdens they carried.

We cannot estimate the handicaps against which they played the game of life.

We cannot measure the depths of their sorrows and disappointments, nor can we envision the heights of their high resolves and noble ambitions.

We have only the pitifully inadequate standards of work accomplished, but even this leaves them a large balance in the book of life.

Given their opportunities could we have done more? We dare not think so. Could we have better met the conditions they faced? Let us rather hope to do as well.

Where they failed—there is no law of charity that denies us the benefit of so guiding our lives that where they stumbled we do not fall. Where they succeeded—they would be the last of all to refuse us the privilege of reaching up to the higher and better things to which they have shown us the way.

They have left us examples to follow, marks to strive for. May we carry forward the torch dropped from their failing hands.

"Can storied urn or animated bust
Back to its mansion call the fleeting breath!
Can Homer's voice provoke the silent dust,
Or flattery soothe the dull, cold ear of death?"

No, but we cherish the memory of the smi'es, the cordial handclasps, the words of commendation and encouragement given—and received. We regret that while opportunity was ours, we did not more.

Fe'low physicians and guests, we will rise and stand with bowed heads while we read the list of our associates who have passed on during the current year:

Dr. M. Boudreau
Dr. Oscar Dowling
Dr. Chas. F. Duchein
Dr. R. R. Grant
Dr. Edward S. Kelly
Dr. A. Ledoux
Dr. I. J. Newton

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

Dr. D. I. Payne
Dr. V. Painchaud
Dr. Thomas Ragan
Dr. Joseph Raphiel
Dr. M. E. Saucier
Dr. L. N. Teller
Dr. Paul H. Tetreau
Dr. Solon G. Wilson

May the lives they lived continue to bring forth blossoms in the soul's flower garden of beautiful memories for their true records are left, not in printed page and sculptured marble, but in the hearts of those who knew them.

DR. EDWARD S. KELLY.

Dr. Kelly was a native of Canton, Mississippi, but spent most of his life in New Orleans. He was a graduate of Tulane University Medical School and practiced here. About two years ago he became a member of the Medical Staff of the Orleans Parish Board of Health in which he was Chief of the Sanitary Division. He died at the Hotel Dieu after a brief illness at the age of sixty-one years. Dr. Kelly was survived by one daughter and two sons.

DR. P. H. TETREAU.

Dr. Tetreau was born at Thibodaux, Louisiana, in 1868, of French-Canadian ancestry. He attended St. Mary's College in Montreal, closing his work there in 1886-87, and attending Fordham College for one year. He then matriculated in Tulane University and graduated in Medicine in 1892. His first practice was in Taribeaux Parish. He then moved to Plaquemine Parish where he practiced for three years, after which he spent three years at the Ear, Nose and Throat Hospital in New Orleans. His later practice was at Monroe where he labored for many years during which time he did much postgraduate work, particularly in New Orleans. He died October 28, 1930. His memory is cherished by a large group of friends who remember him particularly as a kind friend and physician and an earnest student of medicine.

DR. THOMAS REGAN.

Dr. Regan was born in Lincoln Parish, Louisiana, August 3, 1866. He entered Centenary College in 1885, remaining two years and then entering Tulane Medical Department graduated in 1891. He did postgraduate work at New Orleans Polyclinic in 1892. Practiced in Ruston, Louisiana, in 1892-93. Assistant Superintendent Louisiana State Hospital for Insane, Jackson, 1894-98 inclusive. Postgraduate work in New York City 1899-1900. In 1900 passed New York State Board and practiced in New York City for seven years. During this time he served as Medical Inspector for the Health Department and served in other positions. In 1906 he resumed the practice of surgery at Ruston where he remained for three and one-half years. From 1910 to time of his death, 1931, he practiced in Shreveport, giving special attention to surgery. He volunteered for service in World War and returned with the rank of Captain. He was President of Shreveport Medical Society in 1922. Was active as a Fellow of College of Surgeons, a Mason and a Shriner. He died in Shreveport January 5, 1931, of cerebral arteriosclerosis.

DR. SOLON G. WILSON.

Dr. Wilson was born in Hazelhurst, Mississippi, and received his early education at that place. He later attended the University of Mississippi, then entered Tulane, where he graduated in medicine. He returned to Mississippi, where he began the practice of his chosen profession. Later he went to Bogalusa, Louisiana, where he was Chief Surgeon for the Bogalusa Lumber Company and for the New Orleans and Great Northern Railway. About twenty-two years ago he resigned these positions and went to Europe for postgraduate study which was carried out principally at Vienna. He then located in New Orleans and began the practice of medicine with particular attention to surgery. Probably his greatest work was in the surgery of children. He was House Physician for the St. Charles Hotel for fifteen years and for

the last several years was also on the Charity Hospital Board. He gave much time to this hospital work and his services were invaluable to that institution. For the last few months of his life he was confined to his bed with rheumatic fever and finally passed away of heart complications. He is survived by his wife and one daughter. Dr. Wilson was regarded as one of the leading members of his profession in this section of the country and he possessed those rare qualities that make for success in practice and caused him to be surrounded by a large group of devoted friends.

DR. OSCAR DOWLING.

Dr. Dowling, of New Orleans, Louisiana, formerly president of the Louisiana State Board of Health, was killed January 2, 1931, by a train aboard a ferry in New Orleans. Dr. Dowling was born in Alabama in 1866. He graduated from Athens College, and in 1888 from Vanderbilt University School of Medicine. He did graduate work in this country and abroad. He was made Health Officer of Henry County, Alabama, in 1892; in 1896 became Resident Surgeon for the Ear, Eye, Nose and Throat Hospital, New Orleans, and was for ten years oculist and aurist for the State Charity Hospital, Shreveport. He was appointed a member of the State Board of Health in 1906, and later was made President. Dr. Dowling was a member of the House of Delegates of the American Medical Association, 1908-1913, member of the Board of Industrial Medicine and Public Health, 1924-25. Dr. Dowling was formerly on the faculty of Tulane University School of Medicine, was a member of the American College of Physicians and had been President of the Louisiana State Medical Society and of the Southern Medical Association. He founded in 1904 the Medical Recorder, which later became the Journal of the Southern Medical Association. He will be remembered by all who knew him as a genial friend, with high ideals, who fought constantly for the best in medicine and who sacrificed his personal interests rather than compromise when ideals were involved.

DR. I. D. PAYNE.

Dr. Payne was born at Montgomery, Alabama, in 1879. He graduated at the Memphis Hospital Medical College in 1910. In 1912 he was married to Miss Ida Hutcheson. He devoted his efforts to general practice but took time to do considerable postgraduate work, particularly at Memphis, Chicago, and New Orleans. He was a Mason and active in church and those affairs that indicated a man of high ideals, as well as an outstanding physician. He died October 9, 1930, of coronary thrombosis. He is survived by his wife and four children.

DR. F. C. DUCHEIN.

Dr. Duchein was born at Baton Rouge in 1886, the son of Dr. Jean B. Duchein, who came to this country from France. He graduated at the Louisiana State University, then went to the University of Tennessee, where he finished his medical preparation. Began the practice of medicine at Lecompte, Louisiana, but returned to Baton Rouge upon the death of his father in 1903. He did postgraduate work, particularly at Tulane. He married Miss Louise Ogburn and she with two daughters and one son survive him. He was past president of the East Baton Rouge Medical Society and took an active interest in medical affairs, as well as in church, civic and fraternal organizations. He was one of the oldest members of the professional group at Baton Rouge. He was highly regarded by the physicians of Louisiana and left a host of friends to mourn his passing.

DR. L. N. KELLER.

Dr. Keller was born of a prominent and wealthy family on the old home place in East Feliciana Parish, Louisiana, on January 18, 1871. He died at the same place October 8, 1930. He was the son of the late Captain John F. Keller. Dr. Keller was educated at Centenary College, and graduated in medicine from Tulane University.

He was a member of the Feliciana, Bi-Parish, and State Medical Societies. Even before he was graduated in medicine his health became impaired and he had this handicap to contend with the balance of his life. He was a man of strong conviction and great determination, a good friend and a hard fighter. He had a large practice in East Feliciana, and had it not been for his impaired health, he no doubt would have filled an even higher place.

DR. V. PAINCHAUD.

Dr. Painchaud was born in Canada February 26, 1878. His early education was at St. Ann's College and he received his degree in medicine from La Salle University, Quebec, 1893. He then studied for two years in Paris, after which he settled in Montreal, Canada, and began his chosen work. He later moved to Assumption Parish, Louisiana, where he was engaged in active practice for nearly twenty-five years, carrying on a large and successful work. He died at the Hotel Dieu, May 28, 1930, of acute nephritis. He was a physician of splendid equipment and left a strong impression on the hearts of a large group of friends.

DR. JOSEPH RAPHIEL.

Dr. Raphiel was born in Campti, Louisiana, October 25, 1884; receive his early education in the public schools of that town, later on at the Louisiana Industrial Institute at Ruston. He then attended the Medical College at Louisville and New Orleans, graduating from Tulane in 1912. He practiced the profession of medicine until 1929, when he entered the Federal Public Health Service and served as the Director of Terrebonne Parish Health Unit at Houma until the time of his death, November 8, 1930. Dr. Raphiel was married to Miss Katherine Mitchell of New Orleans in 1920. He is survived by his wife, three daughters and one son.

DR. MERRICK E. SAUCIER.

Dr. Saucier was born at Marksville, Louisiana, in 1882. His preliminary education was obtained at that place. Later he went to Louisiana State University and afterwards received his degree in medicine at Tulane in 1907. He served a two-year interneship at Charity Hospital. He then returned to Marksville where he began active practice. In 1913 he moved to Lafayette and became connected with the Lafayette Sanatarium and later became president of that institution. In addition to a large practice, he took an active part in the financial affairs of his community. He was particularly interested in the activities of the Rotary Club. He held many positions of trust and honor in the Masonic and other organizations. He took an active interest in educational affairs, and at the time of his death was a member of the State Board of Education of Louisiana. He married Miss Florence Hasson and is survived by his wife, one daughter, and one son. Dr. Saucier was not only a leading member of the medical profession but will also be remembered as an outstanding citizen of the State.

DR. MARTIAL BOUDREAUX.

Dr. Martial Boudreaux was born in the village of Sunset, Louisiana, October 2, 1879. He received his preliminary education at Grand Coteau, spent two years at L. S. U. and finished medicine at Tulane University in 1906. He entered general practice at Breaux Bridge, Louisiana. He was married to Miss Alice Guidry. He died at the Lafayette Sanitarium of Bright's disease after an illness of several months. He is survived by three daughters and three sons.

DR. I. J. NEWTON.

Dr. Newton, regarded as one of the State's most able physicians and surgeons, died June 5, 1930, at St. Francis Sanitarium, Monroe, Louisiana. Immediate cause of death was neuritis, from which he had suffered for many years. Dr. Newton was

a native of Hamburg, Arkansas, where his father had been an outstanding physician. He received his medical education at Louisville Medical College, and began the practice of medicine in Morehouse Parish. He was married shortly after his graduation to Miss Lucy Ross, of Bastrop, Louisiana. In the fall of 1891, Dr. Newton came to Monroe and formed a partnership with Dr. T. Y. Aby. Several years later he removed to Little Rock, Arkansas, where he followed the practice of medicine, but later returned to Monroe. He had been in practice there more than twenty-five years, when, due to failing health, he retired from active work. In his long career as a physician and surgeon, Dr. Newton received numerous outstanding honors. In 1887 while at Bastrop, he was elected President of the Louisiana State Medical Society. At various times he also aided in the preparation of State legislation bearing on medical matters. Several years ago, when the State Medical Society met for annual convention in Monroe, numerous honors were paid Dr. Newton. He is survived by his wife and three children.

DR. ALEXANDER LEDOUX.

Dr. Ledoux was born March 12, 1867, in the City of New Orleans. He received his preliminary education at Spring Hill College, Mobile, Alabama, and graduated in medicine in 1890 from the medical department of Tulane University. For several years he was associated in practice with the late Dr. Jacob Windahl, and succeeded him at his death. His professional career was entirely devoted to general practice, largely among the old French families of this city. He never worked in any other locality. He was a life long member of the Orleans Parish Medical Society, the Louisiana State Society and the American Medical Association. In his early career, he taught in the Postgraduate School of Tulane University. He was an ardent sportsman and took an active interest in civic affairs. He was a member of the Lake Shore, the Chess, and the New Orleans Athletic Clubs, besides being a moving spirit in numerous Carnival Organizations. He died at his home in New Orleans December 23, 1930, of coronary thrombosis.

THE USE OF AVERTIN AS A BASAL ANESTHETIC.†

I. M. GAGE, M. D.*

and

ALTON OCHSNER, M. D.*

NEW ORLEANS

Avertin (tribromethylalcohol) was first prepared by Willstaetter and introduced into Germany in 1926 as E 107. The original preparation as done by Willstaetter consisted of yeast reduction of bromal (tribromacetaldehyde, CBr CHO). Avertin is a white crystalline substance which readily sublimes and is soluble up to 3.5 per cent in water at 104 degrees Fahrenheit. When an aqueous solution of avertin is heated up to 70 degrees centigrade, hydrobromic acid is released and there is formed dibromacetaldehyde which is very irritating to the gastro-intestinal tract.

Experiments with avertin in this country were begun about two years after its introduction abroad.

Avertin was first used on the Continent in the solid form, and the preparation of the solution for rectal administration was a long and tedious process, requiring from forty-five minutes to an hour. This difficulty has been overcome in that avertin is now supplied in a liquid form as "avertin amylene hydrate" in which one cubic centimeter of the solution contains one gram of the drug, avertin. Amylene hydrate is used as the vehicle because it dissolves the avertin in high concentration, maintaining it in solution, and is readily soluble in water. Amylene hydrate also

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serves as a respiratory stimulant (avertin depresses the respiratory center) and is a mild hypnotic (Eichholtz). The preparation of the avertin solution for use as a rectal anesthetic now requires only about five minutes in contrast to the tedious and lengthy ordeal in preparing the solid form. Blomfield and Shipway[1] found little difference in the anesthetic properties of the properties of the solid or liquid forms. However, they believe that the fluid form is more effective and that it produces less respiratory disturbance. In the beginning the solid form was used clinically to produce anesthesia and was administered in rather large doses without a thorough understanding of its preparation and testing. Severe complications occurred, especially because of deleterious effects on the blood pressure, respiratory center, and gastro-intestinal tract. The mortality was also excessive.

There are some interesting observations as regards its clinical use, brought out by the discussion of the report on avertin in Berlin, 1927, by Eicholtz and Butzengeiger[2]. Butzengeiger[2] reported his clinical experience with avertin anesthesia in which he used 150 milligrams per kilogram of body weight. This produced marked excitation and drowsiness lasting about eight hours. He immediately decreased the dose in his other cases. He reported the use of avertin in 300 cases, in 200 of which a laparotomy was performed. He believed that the drug was a great advance in anesthesia, provided the dose was not exceeded and complete anesthesia was not required in every case.

In discussing Eichholtz and Butzengeiger's report, Nordman,[3] of Berlin, stated that he had used avertin in 250 cases. His patients ranged from fifteen to seventy years of age. In his first cases severe proctitis and tenesmus occurred, but this complication was absent in his last 200 cases. Marked excitation occurred in some cases, but was absent in his last 200 cases. He emphasized the importance of not administering the anesthetic under high pressure.

Sauerbruch[4] stated that he had three deaths following its use, all three of his patients dying with marked gastro-intestinal symptoms. He regarded the drug as not being suitable for general use at that time.

Reischauer,[5] of Breslau, reported 60 cases in which anesthesia was produced with avertin. Two deaths occurred in his series, autopsy revealing fatty degeneration of the liver and kidneys (the same findings as occur in chloroform poisoning).

Unger[6] (Berlin) reported 345 anesthesias with avertin. He had no deaths in his series, but in 8 cases there was severe asphyxia with or without cyanosis and long periods of repiratory cessation. He used from 0.1 to 0.15 gram per kilogram of body weight. He found lobeline and camphor to be valueless in his cases with respiratory disturbances.

Melzner[7] (Königsburg) reported 100 cases of avertin anesthesia. In only 50 per cent of his cases was anesthesia deep enough as to require no additional anesthetic. In 3 cases the effect of avertin failed completely. Serious complications arose during 18 of the operations. There was a marked fall in blood pressure in 5 cases. Melzner[7] had 4 deaths (brain tumor, gastro-enterostomy, Badedow's disease, and simple goitre). He concluded that the drug was more dangerous than the other anesthetics in use.

Druegg[8] (Cologne) reported 60 cases with 2 deaths, but could not attribute either to avertin. In a few cases gastro-intestinal disturbances occurred.

Sievers[9] (Leipzig) reported 89 cases; 15 complete anesthesias, 15 satisfactory, 8 cases anesthesia unsatisfactory, 11 cases failed due to the fact that the solution was expelled from the rectum. In his series there were 2 cases each with cardiac and

respiratory disturbances, both of which responded to the administration of cardiazol.

Krueter[10] (Nuremberg) reported 300 anesthesias with avertin. Complete anesthesia was obtained in 68 per cent. Ether was necessary as a supplementary anesthetic in 26 per cent and in 6 per cent the results were unsatisfactory.

Recent reports by Morrin,[11] of Ireland, Blomfield and Shipway,[12] Hughes,[13] George Edwards,[14] of England, and a visit last summer to a few of the clinics in this country show an increase in the use of avertin as a basal anesthetic. All observers report excellent results in its use as a basal anesthetic and have complications to occur only in those cases in which the amount of the drug was greater than 100 milligrams per kilogram of body weight in an attempt to produce complete surgical anesthesia without the addition of other anesthetics. The majority of reports at present from different parts of the world show that avertin used to produce complete surgical anesthesia is losing its popularity, whereas, on the other hand, its use as a basal anesthetic is increasing and becoming more popular.

Recent reports from Germany give a comprehensive analysis of the number of cases and deaths in the use of avertin as an anesthetic. They report 200,000 cases with 50 deaths, one death in every 4,000 cases, or 0.00025 per cent mortality.

It is evident from a review of the literature that the earlier bad results which were obtained from the use of avertin are not gotten today. We believe that the marked reduction in mortality is due to the use of a more refined product, supplied in liquid form and a smaller dosage used only for basal anesthesia. In fact, even the manufacturers warn against its use other than as a basal anesthetic.

In our small series of 53 cases we have used avertin only as a basal anesthetic. An additional anesthetic was required in 38 cases (71.6 per cent), and in 15 cases (28.3 per cent) no additional anesthetic was required, complete surgical anesthesia being present.

ABSORPTION AND ELIMINATION.

Absorption. The absorption of avertin is from the colon, and the drug is more rapidly absorbed than the water in which it is dissolved. The absorption is very rapid, according to Blomfield and Shipway,[1] within forty to forty-five minutes. However, Morrin[11] has recovered some of the fluid by washing out the rectum within forty minutes after administration. Fluid retained in the rectum following an enema for cleansing purposes previous to administration of the drug retards absorption. If the rectum is full of feces, retardation also occurs, but in some patients in whom the avertin was administered without previous preparation no delay in absorption was noted. In our cases similar experiences have been observed.

Elimination. The drug is eliminated almost entirely by the liver and the kidneys. Avertin is detoxicated in the liver and is excreted as glycuronic acid. Straub[15] has recovered from the urine as much as 81 per cent of the drug. Gainsborough and Gardner[16] made daily analysis of the urine and found that 20 to 60 per cent of the avertin was excreted in this manner. Therefore, any marked disturbance of the liver or the kidney function will result in a delay in excretion. Recent observations by Pribram[17] are of importance regarding the excretion of avertin, and he suggests a method by which excretion can be increased and the narcosis rapidly terminated. He observed that patients suffering with Basedow's disease would tolerate large doses of the drug and that the narcosis was of shorter duration. He concluded that this was the result of increased basal metabolism and that thyroxin, when administered to a patient in whom it was desirable to shorten the narcosis or in cases receiving an overdose of avertin, would

accomplish the same results. Eichholtz[2] showed experimentally that the detoxification of the drug was decreased under the following conditions: (1) removal of the thyroid gland, (2) removal of the temporal lobe of the brain, (3) removal of the adrenals, and (4) in artificially produced fever. This is in accord with the clinical observations of Pribram.[17]

LOCAL AND SYSTEMIC ACTION OF AVERTIN.

Locally, if the drug is not properly prepared and tested, there may result a severe proctitis, which in some cases may progress to sloughing of the rectum. In others there may result only an irritation of the rectum with tenesmus.

Besides its narcotic and anesthetic effects there are effects which are not welcomed; namely, the effects on the blood pressure and respiratory center, which at times are most alarming and require energetic measures to overcome.

Within a few minutes (usually five to ten) after the instillation of the avertin solution into the rectum, the patient falls asleep without any excitement, resembling a natural sleep. Within fifteen to twenty minutes the patient does not answer any questions and is in a state of narcosis. The respirations are decreased in number and amplitude, producing at time cyanosis of varying degrees. The degree of respiratory disturbance is dependent upon the variation in susceptibility of the patients and the amount of the drug administered. The larger the dose the more certain the respiratory center will be affected and in some cases there has been complete cessation of respiratory movements due to respiratory paralysis. Camphor, lobeline, and carbon dioxide are useless as respiratory stimulants when the respiratory center becomes paralyzed by avertin (Killian[18]). Herzberg[19] reports the use of 0.1 to 0.4 gram of caffeine sodium benzoate in 20 per cent solution intravenously where there are marked respiratory disturbances and even in those cases with cessation of respiratory movements. As a result of this injection, the respirations increased in frequency and depth, and the blood pressure showed a rapid rise. In animal experiments, caffeine given intravenously interrupted avertin narcosis, but it was impossible to increase the lethal dose of avertin by administering caffeine.

In our series we have not had any respiratory complications except in one case. This patient had cyanosis of lips and fingers, which we attributed to an overdose of avertin. By mistake the patient received 125 milligrams of avertin per kilogram of body weight instead of the usual 100 milligrams. However, no untoward results occurred in the case. The rest of the series showed only a slight slowing of respiration.

The conjunctival and corneal reflexes are lost and the pupils are contracted but react to light; however, the conjunctiva shows congestion which lasts from thirty minutes to an hour. The patient usually remains in a narcotic and amnesic state two to three hours after returning from the operating amphitheater. There is no excitement on awakening, and the patients, even though apparently asleep, can be aroused and will answer questions. The narcosis is easily transformed into an anesthetic state by the addition of other anesthetic agents, such as ether or gas. However, the preliminary avertin narcosis decreases the amount of additional anesthetics to a marked degree.

In our series we have been able to operate upon 15 cases out of the 53 without the addition of other anesthetics. In 38 cases, additional anesthesia was necessary to reenforce the avertin narcosis. Ether has been the anesthetic of choice in the 38 cases requiring the addition. The average amount of ether used in the 38 cases was two ounces.

The effect on the blood pressure has been constant in the majority of cases reported,

which we have also found in our cases. The blood pressure begins to fall immediately after the drug is instilled into the rectum. However, the fall is gradual and reaches its maximum in about thirty minutes. The average fall is from 10 to 30 millimeters of mercury, which is about the average found in natural sleep. However, at times the decrease in blood pressure is marked, falling at times 50 millimeters of mercury or more. Ephedrin or adrenalin will combat this unpleasant complication. In our series the average decrease in blood pressure was 17.5 millimtters of mercury. In one case the blood pressure could not be ascertained. This tremendous and alarming fall in blood pressure occurred in a case of brain tumor, and because of it the operation was delayed. The patient made an uneventful recovery. Measures, of course, were necessary to restore her cardiovascular equilibrium. Infusions of glucose and ephedrine were employed. In such catastrophies, Sievers[9] recommends the use of cardiazol intravenously. According to Martin[20] the use of avertin is contraindicated in brain tumor cases. Dandy[21] uses it almost routinely as a basal anesthetic in his neurological service. With the use of smaller doses of avertin amylene hydrate this marked decrease in blood pressure is minimized, and at present we are not alarmed by blood pressure drops, provided the patient's color is satisfactory.

PREPARATION OF THE PATIENT AND AVERTIN SOLUTION.

Preparation of the Patient. The patient is prepared as for any type of anesthesia. The night before operation the patient receives a cleansing flush, because we believe that a clean colon is conducive to rapid absorption. On the morning of the operation the patient is given morphine and atropine about a half hour before the avertin solution is instilled into the rectum. The patient should be weighed accurately in order to judge the proper dose of avertin.

Preparation of Avertin Solution. As avertin is dispensed in liquid form, the preparation of the solution becomes a simple matter. There are a few points that must be remembered and constantly observed in order to prevent the decomposition of the drug into its harmful counterparts, hydrobromic acid and dibromacetaldehyde. The amount of avertin is estimated and the amount of distilled water necessary to make a 2.5 per cent solution of the avertin (amount of avertin fluid and water based on kilogram weight of the patient is furnished by the manufacturers, which further simplifies the preparation). The distilled water is heated to 40 degrees centigrade, or 104 degrees Fahrenheit (higher temperatures are to be avoided because of the danger of decomposition); then the avertin is measured (1 gram of avertin is represented by each cubic centimeter of avertin fluid) and placed in the warm distilled water. The mixture is then thoroughly shaken, the avertin rapidly going into solution. The solution should not be allowed to cool as the avertin is immediately precipitated out of solution. The solution must now be tested for purity before giving it to the patient. This is probably the most important step in the preparation. About 5 c.c. of the fluid is put into a small vial and 1 to 2 drops of 1:1,000 Congo red solution is added and thoroughly mixed with the avertin solution. If the solution has not decomposed, the solution remains reddish yellow. If decomposition has occurred, hydrobromic acid will be present and a violet color will result. If this discoloration occurs, the solution should not be given, as deleterious effects will occur. The most frequent cause of decomposition is overheating. When the temperature is raised above 45 degrees centigrade, decomposition rapidly takes place, and also, if exposed to light and air, the same thing occurs. We have repeatedly boiled the solution and tested it immediately and found no change in the color reaction with Congo red.

The solution is now ready to be instilled into the rectum. This is accomplished by inserting a rectal tube to which a glass funnel has been attached. By slowly introducing the solution into the funnel it flows into the rectum by gravity. After all of the fluid has been introduced the rectal tube is clamped with a hemostat and the tube is removed from the rectum when narcosis has been obtained. The avertin should be given at least 15 to 20 minutes before the scheduled time of the operation.

POSTOPERATIVE CARE.

The postoperative care of patients that have received avertin differs very little from those that have received the usual types of inhalation anesthesia. As all cases on our service are carefully water until recovery from the anesthetic state has been completed and as recovery from avertin in our cases has been on an average of two hours, our ward routine has not been changed. In one to two hours after operation the patients receiving avertin have regained consciousness and begun to complain of pain in the region of the operative wound. Morphine is then given and repeated as often as necessary to keep the patient free from painful stimuli for a period of twenty-four hours. After this period, morphine is seldom necessary. To supply the necessary amounts of fluids, the rectal administration of saline or glucose solutions have adequately met the demands of the patients.

If the narcosis seems prolonged, which may either be due to over-dosing or to damaged excretory organs, the administration of the glucose intravenously (10 per cent) combined with thyroxin subcutaneously (Pribram[17]) will speed up the detoxication and facilitate excretion with resultant shortening of the recovery time. In one of our cases the postoperative narcosis lasted over a period of four hours. This was due to an overdose of the drug. This patient did not show any alarming symptoms and made an uneventful recovery.

Our series is too small to draw conclusions as regards postoperative complications; however, we have noticed that there has been a decrease in postoperative nausea and vomiting even in those cases requiring ether to reenforce the avertin. This in itself is welcomed by both patients and surgeon. There have been no postoperative pulmonary complications in this series. This, however, cannot be attributed to the use of avertin.

Contraindications. Patients with damaged liver, kidneys, old debilitated patients, patients with low blood pressures, and cardio-vascular instability, and patients with certain pulmonary affections where the respiratory surface of the lungs is decreased should not receive avertin as untoward complications may result, ending in disaster.

SUMMARY.

We report 53 cases in which we have used avertin as a basal anesthetic. Of this number 15 had complete anesthesia. Thirty-eight required supplementary anesthesia. Ether was always used as the reenforcing agent. The average blood pressure decrease was 17.5 millimeters of mercury. The average time interval for postoperative recovery from the effects of avertin was two hours. The type of the operations ranged from laminectomy to removal of an exostosis of the femur.

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DISCUSSION.

Dr. G. C. Anderson (New Orleans): The search for an ideal anesthetic has been going on ever since Long first reported ether. We have had a good many which were thought to meet the necessary requirements but most of them have passed on into oblivion. Up to the present time the ideal anesthetic, like most of our ideals, is something yet to be realized.

As early as 1846 ether was administered by rectum both the vapor and in aqueous solution but both proved too irritating to the rectal mucosa. In 1914 Walker introduced an oil-ether combination which seemed, to a large extent, to satisfy many of the requirements of a rectal anesthetic. However this produced occasional trouble and in an endeavor to get away from these complications and produce a greater margin of safety Willstaeter and Dousberg early in 1926 synethsized an anesthetic soon used clinically by Butzengeiger. Morizan described avertin as a "white chrystalline powder which melts at a temperature between 79 and 80 C, fairly soluble in water, 2½ per cent at 20 C and 3½ per cent at 40 C. At a higher temperature these solutions decompose partially; a dibromide substance is produced and hydrobromic acid is freed. Solutions in alcohol lack stability at all temperatures and also old aqueous solutions especially if exposed to light." Lundy reported the solution neutral after 48 hours. Last year Lundy brought out a comprehensive review of avertin up to that date and it is to his article that I am indebted for statistics presented.

Mushorn in 1928 reported 310 cases, in 15 per cent addition of a little ether was required, 8 per cent did not respond to avertin. It was deemed most pleasant for the patient but not the anesthetic of choice and he thought should be used only where there is a contraindication to inhalation, spinal or local. There are reports of two cases of hemorrhagic nephritis, one of suprarenal hemorrhage and five of hemorrhage. Hertzen found that avertin instilled into the eye of a rabbit caused a conjunctivitis but could show no histologic changes in the mucus membrane of the rectum. In Dreissin's cases 33 per cent required ether, Haas and Conrad 50 per cent, Kohler 25 per cent, Nehrkron 85 per cent and Martin's 5 per cent. It is very difficult to draw conclusions from such widely diverging experiences. Killian in 1928 reported 3746 cases with 33 deaths 16 of which he charged to the anesthetic, 50 to 60 per cent of the cases showed cerebral excitation. Kohler reported 300 cases with no complications, Schultz 400 cases with no complications, Nehrkron 180 cases with no bronchitis except where ether was used, Butzengeiger 800 cases with no pulmonary complications.

Lundy divided the reported cases into groups according to the number of cases. In the first group of 1000 or more there were two series, one of 3000 with 1 death and one of 1000 with no deaths, a percentage of 0.25; in the second group of 500 to 1000 cases there 11 series making a total of 7746 with 5 deaths, 2 of which were thought to be due to the anesthetic, a percentage of 0.39; in the third group of 100 to 500 there were 39 series with a total of 9773 cases and 44 deaths, 31 charged to the anesthetic, percentage 1.33; in the fourth group of less than 100 there were 21 series with a total of 1407 cases, 11 deaths, 3 due to anesthetic, percentage 2.1. Shipway in England in 1929 reported 106 cases from Guy's Hospital. In no case was there cause for anxiety either before or during the operation; Young of Edinburg had 154 cases, no deaths, Lewis 28 cases, no unpleasant sequelae. In the psychiatric clinic at Marburg 15 manicial patients were kept asleep or drowsy for periods of from 2 to 10 days with no unpleasant effects.

In Dandy's clinic avertin has been used for nearly a year, I do not know the number of cases and no report has as yet been published. Dr. Dandy was satisfied with the anesthetic and not impressed by the slight drop in blood pressure which occurred. He sometimes found it necessary to give

ether but seldom more than a few ounces and that only in long operations.

The patients usually come to the operating room looking well, breathing regularly and sleeping soundly. We recently had an upsetting experience at Charity Hospital with a case scheduled for a posterior fossa exploration. The patient appeared to be all right and we were prepared to start the operation when the blood pressure cuff was applied as we keep records of the blood pressure during such operations. The interne reported he could get no reading and this was immediately verified. No heart sounds could be heard with the stethescope. The patient was warm, her color good and she was breathing regularly. The head was lowered and ephedrerin given, the temperature was normal, the breathing continued unembarassed and after some 15 minutes her blood pressure began to register at about 40 systolic and then gradually rose. She was returned to the ward and some four days later explored under ether making an uneventful recovery. Dr. Gage felt there must have been an error in calculating the dosage but, of course, it was impossible to verify that. So far as I know that is the only case in Charity Hospital in which alarming sequelae have occurred. We have since used the anesthetic with perfect satisfaction. We feel we have in avertin at least a basal anesthesia which up to the present time has proven satisfactory, many operations have been completed with no supplemental anesthesia.

Dr. Ochsner (New Orleans): I merely want to emphasize a few points which Dr. Gage made. I do not feel that avertin is a fully proven anesthetic by any means; however, anyone who has used it will be impressed with it.

Avertin should be used guardedly and the point Dr. Gage made in reference to this should be observed carefully. I feel very much about avertin as Lahey does about spinal analgesia; it should not be used for those types of patients in which any other kind of anesthetic is not indicated. It should not be reserved for the poor risks; this type of patient does not stand avertin any better than other types of anesthetics. If we reserve avertin for this type we will get bad results. In the healthy patient avertin does produce splendid postoperative results. In from one to two hours they awaken out of a sleep which is perfectly natural. The postoperative complications are certainly much fewer than we get in the ordinary type of anesthetic.

Dr. H. W. E. Walther (New Orleans): I would like to emphasize the value of avertin in painful examinations. I think it has a place where we are dealing with patients who must have something to relieve them besides ordinary hypodermics. I am very well satisfied with avertin in cystoscopic work, particularly in the examination of tuberculous and cancerous bladders, but it is impracticable where roentgen-ray study is contemplated.

I thought it would be interesting to report here briefly a case that had received avertin:

Mrs. L. V. C., aged 40, and the mother of nine children has been under my care for the past six years. She was delivered of her last three children during this time. She has bilateral renal calculi and a large stone in the lower right ureter. The best phthalein obtained upon her read 15 per cent. In the past 18 months it has remained around 5 per cent. Whenever she has high fever from right ureteral block, she is admitted to the hospital for cystoscopy. Some months ago, by mistake, she was given per rectum 2.8 c.c. of avertin sol. in 105 c.c. water, an hour before cystoscopy. She slept soundly for 36 hours, during this period she could be aroused only with difficulty. Her pulse and respirations were little affected throughout. If such a patient with serious renal damage can tolerate avertin, it must possess but little toxic qualities.

I have had the pharmacist at the Hospital prepare avertin solution just before I am ready to use it.

Dr. Gage (closing): In regard to Dr. Walther's statement that he uses avertin in small doses for painful examinations, the Germans frequently resort to its use in examining patients before students.

We believe that avertin is one of the best basal anesthetic drugs that we have, and suggest that it only be used as such.

We use as a maximum 100 mg. per kilo of body weight and so far have had no unpleasant reactions.

THE MARIAHUANA MENACE*

A. E. FOSSIER, M. D.,

NEW ORLEANS.

History tells us that about the year 1090 A. D., the military and religious order or sect of the Assasins was founded in Persia by Hassan ben Sabbat.

This diabolical, fanatical, cruel and murderous tribe, although isolated in the mountains of Lebanon, and in the valleys and glens of Persia and Syria became remarkable for its secret murders committed in blind obediance to the will of their chief, and the heniousness of its crimes was bruited the world over. Their numerous acts of cruelty cast dire panic and consternation in the stoutest hearts not only in Asia but in Europe as well. This branch of the shiite sect, known as Ismalites, was called Hashishan, derived from Hasish, a confection of hemp leaves, cannabis indica. From the Arabic "hashishan" we have the English word "Assasin".

It was their custom that whenever the Sheik required the services of an assasin, a distinctive class, the "fedais" were intoxicated with the hasish. When in this state they were introduced into the splendid gardens of the Sheik, and surrounded with every sensual pleasure. Such a foretaste of paradise only to be granted by the supreme ruler, made them eager to obey his command. With blind obediance to his slightest wish they willingly sacrificed their lives because of the belief, intensified by the influence of the weed, that the Holy Spirit resided in their chief, and that his wish was the will of God.

During the time of the Crusades, they resorted to every kind of violence. Their utter disregard for death and the ruthlessness of their atrocities presented a formidable obstacle to the arms of the Christians, because under the influence of hashish those fanatics would madly rush at their enemies, and ruthlessly massacre every one within their grasp. It was only about the year 1272 that they were conquered by the Sultan Bibars.

Although cannabis indica has been accused of exciting the basest and most criminal tendencies in the minds of its addicts, at the same time some of the most brilliant creations of the human intellect, especially erotic in character, have been conceived in brains under the influence of that nefarious weed. This may also be said of nearly every intoxicant or narcotic.

It is claimed that the various tenets of the school of the philosopher Pythagoras were inspired by the influence of hashish. This weed known to the Greeks as "nepenthe" was lauded in the immortal Odyssey as a drug to lull all pains and anger, and to bring forgetfulness to all sorrow. And but comparatively recently it was praised by, and was a source of inspiration to many of its illustrious devotees, among whom must be noted the great Theophile Gautier and the renown poet Charles Baudelaire.

The manifold action of Indian hemp has been attested to in history and romance. Under its addiction the most brutal and beastial crimes have been perpetrated, armies were transformed into fanatical hordes, dervishes have performed apparently impossible feats of human endurance, and intellectuals have soared to the heights of imagination; withal, nations and races in the grasp of its nefarious influence have degraded to the lowest plane of civilization.

Mariahuana, vulgarly called "muggles", is Cannabis sativa, derived from the flowering tops of the female plant of hemp grown in semi-tropical and temperate America. It was once thought that only cannabis indica grown in the far east was active, although the German hemp is inert, the American specimen, mariahuana, is equal in potency to the best weed of India.

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*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.

Whilst the intoxicating and narcotic properties of Indian hemp have ben known and hashish has been in common use for time immemorial in the Orient, it was not until recently that this menace has assumed a formidable aspect in our southland. The facility with which it can be cultivated, because of the fertility of the soil, our semi-tropical climate and the ease with which seeds may be procured, make its prohibition practically impossible. The muggles habit once firmly established in this community will never be eradicated, and will quickly spread over the length and breath of this country. This weed has already been found in some of the back yards of this city, and we can only imagine the extent of its cultivation. Despite all the police regulations and the state laws concerning its cultivation, use and possession, the traffic in muggles seems to be thriving here. It is impossible to make even an approximate appraisement of the extent of its use in this community, but we can readily surmise the magnitude of this danger when we consider that it is estimated that over two hundred million people constantly indulge in it in some form or other. In fact it has been said that what alcohol is to the Europeans, hashish and ganja is to the Indians and Egyptians.

This intoxicating weed can be taken in many ways, its preparation most commonly used is "ganja," an indian name for a mixture of the stems, leaves and flowering tops of the cultivated female plant. Ganja is smoked in the form of cigarettes or with the pipe; its smell is typically offensive, and easily recognized by the initiated. It corresponds to what is locally known as muggles. Bhang or Siddhi, are also Indian names for the mixture of these dry leaves and capsules without stems, whether female or male, cultivated or in its wild state. It is the cheapest and the weakest of all the preparations of hashish, and it is taken as tea. The resinous substance which exudes from the flowering head of the female plant is called "choras." It is either smoked or is taken in pills or in confections, or mixed with sugar or honey.

Locally its addiction is in the form of smoking. When it is snuffed it is readily absorbed by the nasal mucosa and has a more profound effect than when it is smoked.

In many respects the action of cannabis sativa is similar to that of alcohol and morphine. Its toxic effects are, ecstacy, merriment, uncontrollable laughter, self-satisfaction, bizare ideas lacking in continuity, and its results are extreme hyperacidity with occasionally attacks of nausea and vomiting. It has also been described as producing, in moderate doses, from mild intoxication to a dead drunk, drowsy and semi-comotose condition, lapsing in a dreamy state with a rapid flow of ideas of a sexual nature, and ending in a deep sleep interrupted by dreams. On awakening there is a feeling of great dejection and prostration. Large doses produce excitement, delusions, halucinations, rapid flow of ideas, a high state of ecstasy, psychomotor activity with a tendency to willful damage and violence, and a temporary amnesia of all that has transpired. In cases of prolonged addiction especially in the Malays, the somnolent action of cannabis indica is replaced with complete loss of judgment and of restraint, the same effect so frequently observed in alcoholic intoxication.

Captain Dhunjibhoy, Superintendent of the Indian Mental Hospital in Ranchi, says: "I shall not hesitate to believe any one who commits acts of violence under the influence of the drug and pleads complete amnesia of the crime on recovery."

From the same authoritative source the following is quoted: "I put this drug above alcohol, opium and cocaine, with regards to injurious tendencies in the causation of insanity in India." He states that hemp is a direct cerebral poison which causes the following types of insanity: 1, acute delirious mania; 2, chronic mania; 3, dementia.

He claims that the prognosis in these forms of insanity is as a rule hopeful, for in the acute state 90 per cent and in the chronic cases 40 per cent recover.

The underworld was quick to realize that mariahuana was an ideal drug to quickly cut off the inhibition, especially in the type of inadequate personality. Under the influence of cannabis indica, these human derelicts are quickly subjugated by the will of the master mind. The moral principles or training inculcated in the mind from infancy deter from committing willful theft, murder or rape, but this inhibition for crime may be destroyed by the addiction to mariahuana. Kingman says that in the suggestibility resulting from hashish intoxication, the last vestige of man's artificially acquired restraint is swept away. Thus it can be readily seen how many of these unfortunates with inadequate personalities, laggards in the struggle for existence, the majority of whom are the victim of pyschesthenia, become engulfed in the abyss of drug addiction, and end their miserable existence either on the gallows, or in penal institutions and insane asylums. The moral and physical resistence to narcotics and alcohol is not only weakened but often destroyed in persons of stabilized personality, who are addicted, even to a moderate degree, to mariahuana.

I am indebted to Dr. George Roeling, coroner of the Parish of Orleans, for the following survey recently made in the parish prison of this city. The histories of four hundred and fifty prisoners show one hundred and twenty-five confirmed mariahuana addicts, from 18 to 31 years of age. Addiction was not found in any one beyond that age. It is twice more frequent in the whites than in the negroes.

The records of the district attorney during the past year reveal that 17 out of 37 murderers, 13 out of 145 forgers, 36 out of 195 imprisoned for grand larceny, and 21 out of 115 detained for assault and robbery were addicts of muggles, and that 68 arrests were made for the sale and possession of mariahuana.

This survey shows that approximately one out of every four persons arrested in this city is addicted to mariahuana. The sixty-eight arrests made last year for the violation of Act 41, 1924, relative to possession and sale of mariahuana, which is doubtless only a small percentage of those engaged in the traffic, attest quite a large consumption of the drug.

As far as it can be ascertained this addiction has assumed formidable proportions since the advent of that "noble experiment" that fiasco, prohibition. In fact it is the offspring which bids fair to surpass its dissembling parent in destroying moral inhibition. The lesser of the two evil is alcohol. Whilst both induce a feeling of pleasure and contentment, moral degradation is the most salient feature of mariahuana, for the concomitant loss of social position because of a loose, irregular and frequently criminal existence, make these unfortunates a curse to their families and to their communities.

The debasing and baneful influence of hashish and opium is not restricted to individuals but has manifested itself in nations and races as well. The dominant race and most enlightened countries are alcoholic, whilst the races and nations addicted to hemp and opium, some of which once attained to heights of culture and civilization have deteriorated both mentally and physically.

Whilst it is most unfortunate for humanity to be subjugated by intoxicants and narcotics of any kind, which at this stage of our civilization seems to be a necessary evil, the possible substitution of alcohol for a greater evil should be considered the greatest possible calamity that can befall a nation. It is not confined to the criminal class.

Mariahuana is a real menace to this community. Despite every precaution school

children of tender age, have been detected smoking muggles. Dhunjibhoy states that indulgence in hashish is usally confined to males between the age of twenty and forty. And here in our city jails, it was not found in any prisoner over thirty-one years of age.

Our city authorities are thoroughly aroused to the seriousness of the situation and are doing everything within their power to cope with this growing menace. It is rapidly reaching beyond the city and state and now demands national control. It behoves this society to give this matter its careful attention, and use every means in its power to induce the national government to include mariahuana in the Harrison Narcotic Act.

England has recognized the seriousness of the problem and in the year 1925 has included cannabis indica in its dangerous drug act.

The commissioner of public safety, Dr. Frank Gomila, has taken a deep interest in this subject and directed a great deal of time to its study. I feel much indebted to him and to Miss M. Gomila, assistant city chemist, for their valuable assistance.

DISCUSSION.

Dr. G. F. Roeling (New Orleans): I deem it a pleasure and privilege to be called upon to open discussion on so important a paper, and so timely and so ably presented as Dr. Fossier has presented here today.

Dr. Fossier has outlined to you the amount of menace mariahuana constitutes. It may be well that I relate to you briefly my experience, and I think it will forcibly impress upon you the importance of the mariahuana situation in this section here which I deem largely due to the fact of our seaport facilities for getting the drug.

When I was elected Cornor of tthe Parish of Orleans and during the period of awaiting my induction into office, I surrounded myself with medico-legal problems and studied them from various angles and various standpoints. I went into the study of every form imaginable that we would have to combat in safeguarding our people from crime producing individuals. I went into the study of drug addiction, and into the study of mental diseases from the criminal aspect, but at no time did the subject of mariahuana come into my consideration.

Hardly had a few hours passed after my induction into office when specimen was sent to me for identification of the drug. Individuals were sent to me for examination to determine whether they were mariahuana addicts or not. Attorneys began to use this type of drug addiction as a means of defense for their clients in criminal court procedures. This act was only originated in 1924 which made it a penalty to possess or sell mariahuana in the state of Louisiana. My induction into office was in May, 1925, so you can readily see what a short period of time existed between the origination of the law and my induction into office.

I immediately made a survey of the literature on the subject and found it to be nil. The nearest I could get to a subject of any satisfactory point was that of the United States Dispensary, and that was obsolete in its formation. I immediately called upon my old professor, Dr. A. L. Metz, who was about as limited in literature as I was but who had quite a bit of knowledge and experience because of his position in chemistry and otherwise in making a study of the drug. But neither of us knew very much of the physiological action of the drug until we combined our efforts in studying the actual physiological effect of the drug.

Dr. Fossier, in his paper, brought out a few interesting points in regard to the physiological action of the drug. We can consider the action of this drug upon the human mechanism as we would consider the acceleration of an automobile with the clutch out. We feel that this mariahuana drug stimulates the cortical cerebral centers and inhibits the controlling sub-cortical centers of our mechanism which is responsible for this rapid flow of ideas, the immense visualization of these individuals, the bolstering up of their courage, and the various phenomena which will eventually give them courage and lead them into the most crime producing individuals that we have.

Dr. Fossier gives you a memorandum of 200,000,000 people in the world using mariahuana. Dr. Fossier has brought out the striking statement that between the two evils, alcohol or mariahuana, the mariahuana is by far the greater menace. I agree heartily with Dr. Fossier.

I readily realize—I believe we all do—that we have certain types of individuals who live in our communities who are of such mechanism that they need some form of stimulation in order that they

may properly cope with their situation. Whether that be alcohol or whether that be mariahuana, they are going to consume the one that is the easies to be had and the cheapest and most accessible to their command.

Between the two, I would certainly much prefer having an alcoholic individual to contend with than I would a mariahuana individual. Yet in handling the mariahuana addict you can confine him to the Parish prison and take him off the use of the drug without any ill effects except a certain amount of craving, but there is no physiological disturbance in his mechanism after he has been taken off the drug.

I certainly want to compliment Dr. Fossier for the thoroughness with which he has presented his paper, and the interest he has given to this subject because I feel that we as medical men, and particularly myself in the position I hold, are confronted with this very important factor in our daily lives. I want to thank Dr. Fossier for presenting the subject.

Dr. F. R. Gomila (New Orleans): Mariahuana in our section is certainly beginning to give us a great deal of trouble. I have instructed the Police Department to pick up all of the vendors of the drug and to go further into details in attempting to find the location of the existence of mariahuana in our city. As you know, the Police Department is on edge attempting to destroy the sellers of the drug in the city.

Mariahuana, to my mind, should be put in the same class as heroin. It serves very little medical purpose and should be removed from the market. Before the conclusion of this session of the State Society I would like to have some definite action taken whereby the Society would go on record asking the Government to take cognizance of the situation as it is today.

Just outside of New Orleans on both the lower section and the upper section are vast fields of this weed that is growing, and unless something is done along the lines of gigantic enforcement (and I believe that could only be accomplished by the Government) mariahuana is going to continue to be a severe menace to our community and to these United States.

I want to say in conclusion that I will appreciate it if the Society will recognize the fact that mariahuana is in the same class with heroin and that an attempt should be made to remove it from the market.

Dr. F. F. Young (Covington): As the President has said, we are already over our time, I shall be brief. I would not have made any remarks had I not been requested to do so, by my friend, Dr. Fossier. It is not known apparently where the word marijuana or marihuana (both terms are correct) originated or its definition—a letter from the botanical division of the Department of Agriculture of the U. S. Government states that they have been unable to find anything on the subject, in the literature, in their possession. We must recognize that marijuana as grown in Mexico or Louisiana is in reality Cannabis sativa —Cannabis indica and the others are also Cannabis sativa. This plant grows from Africa to Russia and from the Alps to Kentucky, from Kentucky to Louisiana, from Louisiana to Mexico—if there is a plant indigenous to every part of the world, I suppose this one comes as near filling it as any. The lay term is hemp. In Russia the plant grows very vigorous and ordinary hemp rope is made from it—the products from Cannabis sativa grown in India, are those used entirely, almost, in medicine. There, as we know, it is called Cannabis-Indica. Fifty one years ago Dr. H. C. Wood, the author on a work on Materia Medica and Therapeutics, was invited from Philadelphia to Columbia University, New York, to describe his experiences upon himself, in the study of Cannabis Indica—I refer you to this work, if you wish to read something interesting and charmingly descriptive. Major S. A. Billings, who was in the Medical Corps, with Pershing's Army, on the border of Mexico, when an attempt was made to arrest Villa, has stated to me, that certain individual types of soldiers took to smoking Marijuana like ducks take to water. After smoking it, they would become hilarious and dangerous and had to be locked in cells until sobered up. In the last thirty eight years, we have treated approximately seven thousand drug addicts and my classifications of this disease today would be quite different from then. Thirty five years ago classifying addicts numerically, morphine would have gone down first, cocaine second, chloral third, bromide fourth, with a small number from other drugs. Today, I would be disposed to place at the head of the list, the barbatal group, marijuana second, etc. Regarding marijuana addicts, from what we have seen and from what we have gathered from authorative sources, it is exclusively used by smoking. All that such addicts we have seen were in young persons, under twenty five, who were defective in the brain and nervous structure before they began smoking this weed—they belong a type commonly called "moral imbaciles"—they give a history of being incorrigable at home and at school and as they grow into manhood become criminally inclined—the marijuana addiction aggravates this very much. From what we have seen, these smokers are criminals before they become addicted to the weed. There is a peculiar

laugh, of these addicts, that when once heard, can never be forgotten, I mean when they are on a drunk from its effects. In conclusion I want to state that the flowers of the female plant once pollenized by the male pollen has no longer any medicinal virtue. I enjoyed Dr. Fossier's paper very much—it is food for serious thought. I thank you.

Dr. Fossier (closing): I want to thank very much those who have discussed my paper.

If over night, after the advent of prpohibition, this nation became so adept in the brewing of beer, the making of wine and the distilling of alcohol, so much so that even children are adept in their manufacture, what will happen in the near future, with such a dangerous plant that may grow in our very back yards.

Dr. Roeling is correct when he said that mariahuana is the accelerator to a criminal nature, especially when the inhibition of that individual is low.

I feel, gentlemen, that the Society should take an active part to eradicate this growing evil and it is for this reason that I am presenting a resolution to the House of Delegates, and I hope they will give this matter their kind attention.

CARCINOMA OF THE LIP—RADIUM TREATMENT.*

M. T. VAN STUDDIFORD, M. D.,

NEW ORLEANS.

Carcinoma of the lips is fairly common affection occurring in all walks of life, among the clientele of any medical practitioner. It spares neither the rich nor the poor; is more among men by fifty to one; occurs about ninety-five (95) times on the lower lip to five (5) times on the upper lip. It should be of interest to everyone as physicians and as probable victims.

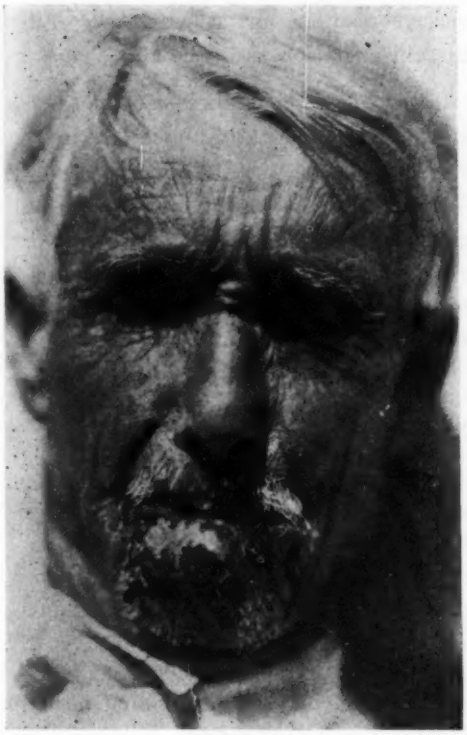
Two forms of lesions occur: the papillary form appears as a wartlike thickening which long remains elevated. It extends slowly in all diameters as a flat thickening in the epidermis and is slow to invade the deeper tissues or lymph-nodes. Later, it may ulcerate and follow the usual course of infiltrating epithelioma. It yields to conservative treatment and should be distinguished from the more malignant variety.

The infiltrating variety may appear as a flat thickening of the epithelium or as a nodular growth invading from the first the submucosa, and lying beneath rather than in the epithelial layer. Early ulceration produces a broad, deep ulcer, with pearly indurated edges, or a more bulky excavated tumor which may become fungating with extension to the floor of the mouth, involvement of periosteum and early invasion of the sub-mental, lingual and maxillary nodes. This metastasis may be to the nodes on the corresponding side or on the opposite side from the lesion. The group of nodes involved is about evenly divided.

Secondary infection, usually Streptococcus pyogenes, plays an early or late part in the disease and leads to local suppuration, erysipelas, septicemia, thrombosis of vessels, edema of the glottis and pneumonia. Errors in diagnosis: Leukoplakia, capillary angioma, granulation tissue (blastomyosis, glanders, Vincent's and leukemia) and syphilis often appear on the lip in lesions difficult to differentiate from carcinoma.

Fungating type of epithelioma which should have received large doses of radium and then block surgical repair.

*Read before the Louisiana State Medical Society, New Orleans, April 14-16, 1931.



Large epithelioma in the pink sensitive skin individual. This type patient has poor resistance.

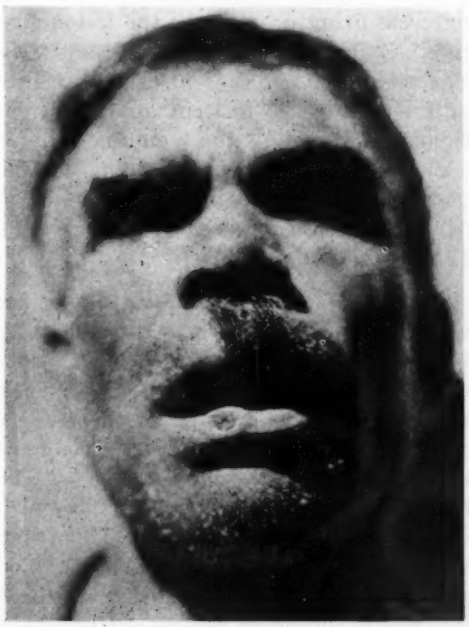
A Wassermann should be done on all patients irrespective of social position. Small sections should be sent to the pathologist for study and diagnosis.

Smoking has been upheld as the one great factor in producing carcinoma of the lip, so much so that it has been called "Smoker's cancer." However, chronic sunburn or weather exposed, thin, sensitive lips, irritated by poorly arranged, sharp-edged teeth, bathed in pyorrhea, are made more susceptible to carcinoma. Of late the hygiene of the mouth bears an important role in cancer prevention. In carcinoma, as in many diseases, syphilis is a chronic offender and adds to the morbidity, rapidity of growth and slowness of healing.

Treatment depends upon the amount of radium and its form or arrangement in applicators. Radon is not considered in this treatise.

A patient with a flat papillary carcinoma of the lower lip, there being no ulceration, is a selected case for superficial (Beta-ray radiation) such as with the half-strength radium plaque. Filtration in this type is little more than 2 m.m. rubber as the lesion is hardly more than a dry leathery area. Where some noticeable thickening is encountered, a more quantitative dose is required. Radium tubes filtered through 1 m.m. brass, placed on a gauze pack or dental compound at 1 cm. to 3 cm. distance is used by cross-firing the lesion. Radium packs or filtered roentgen-rays may be placed over the submental, lingual and maxillary node areas as a precautionary measure. The patient is given the advantage of this precautionary treatment even if many of the lesions are innocent, non-metastasizing.

In the infiltrating, squamous or epidermoid variety of lesions, tumor formation with or without ulceration, demands energetic therapy; dosage that does as much or a bit more than you judge is needed. Err always by over-dosage when in doubt. You



Fairly early epithelioma. Hard to differentiate from group of granulomata.

Sharp-edged ill-fitting teeth. Bathed in pyorrhea, causing an irritation which developed epithelioma of the lip.

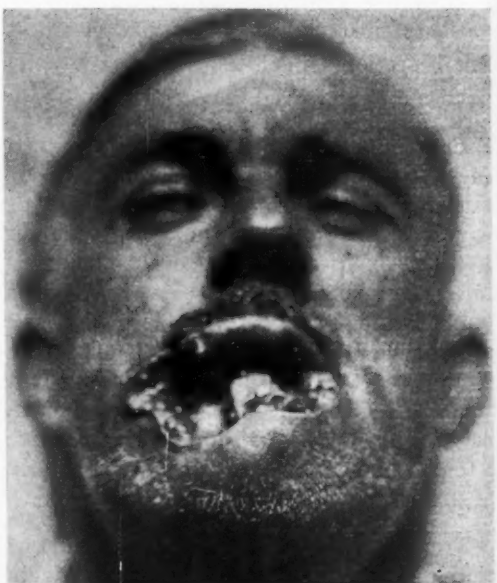
may have enlarged lymph-nodes which may be metastatic or only inflammatory.

Either apply radium tubes over the lip by cross-firing or place in the lesion itself interstitial radiation, planting needles through the mass; radium needles inserted at a distance of ½ to 1 cm. apart. Precautionary radiation of the lymph-nodes areas and removal for diagnosis of any enlarged nodes. If metastatic, increase the radiation over all lymph-node areas with removal of all nodes.

The far advanced infiltrating variety with bulky friable fungating lesions involving a major amount of lip tissue should receive external cross-fire radiation, interstitial needle radiation up to the stage of cauterization of the mass and pronounced reaction in the bordering tissues. The mass should then be removed, followed by early repair of the tissue lost. This plastic operation should follow before the blood supply has been so constricted by radiation that tissue sliding or pedicle grafts will not starve. Lymph-node involvement should receive radium or roentgen-ray filtered distant radiation as in the above class.

Early repair causes a rise of morale with the patient. Irritating saliva is inhibited from dribbling over the raw wound or lesion, and mastication of food is better carried out. Therefore, a fair guide to radium treatment of the lip would be: an erythema dose of Beta-ray ½ strength radium plaque 2 mm. rubber filter for the slight flat leathery lesion, and on the papillary and early infiltrating lesions treat with interstitial radium needles radiation delivering from 50-80 mc. hours to each square cm.; and in the large bulky friable fungiating lesions as much as 100 mc. hours to each square cm.

The dosage for cross-firing by radium tubes 100 mc. hours per square cm. is a medium dose. Lymph-node area is given from 2000 mc. hours to 3000 mc. hours by packs at 5-7 cm. distance, using pith wood blocks or gauze as filters. Always remember the effect upon the thyroid gland and protect with a lead filter.



Results of improperly treated patient. Still is free of lymph node enlargements.

Luetic lip treated by cancer paste quack with loss of most of lip. Healed by antiluetic therapy—Then had a plastic operation.

COMMENT.

The life and future happiness of the patient is one's first concern; therefore, cures are more important than temporary cosmetic results.

The surgeon, radiologist and pathologist should work hand in hand. Many more patients can be cured by combined efforts.

Cancer paste is painful, mutilating and of use in only a select group of hopeless lesions in the hands of one experienced in its use.

Broders classification of carcinomatous growths is of aid for prognosis.

Patho'ogical sections of lesions should be made when possible. A Wassermann reaction should always be made. Mild antiluetic (protiodid of mercury pills) is routinely given because of the large per cent of double affections. This is continued for at least one month. Each large medical center needs enough radium to produce radium emination applicators. Radon seeds have more accessibility than the needles of the radium salts. Neighboring small institutions are compelled to send to a great distance for Radon seeds and the loss by days in shipment is too expensive. An emination station in our midst could supply two or three states with less than twenty-four hour service. Better results are being reported each year in the treatment of carcinoma of the lip, but the patient is delayed too long before he receives proper adequate treatment. The remedy for this is: Better, quicker diagnosis. Education of the public to be more alert and introspective for lip cancers. Better care of teeth, mouth and lips.

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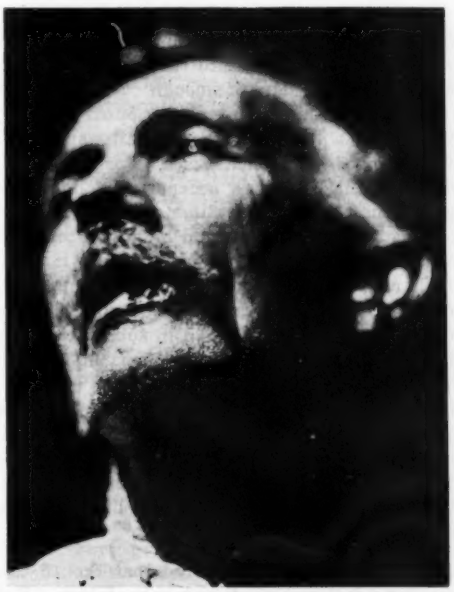
DISCUSSION.

Dr. H. E. Menage (New Orleans): The surgeon was at one time very emphatic in his attitude on lesions of the lower lip; his opinion then was to excise them promptly and clean out the lympatic nodes of the neck. Since irradiation therapy has become more and more developed, his attitude has greatly changed and he has come to



Friable fungiating excavating epithelioma. Large dose of radium to lip and lymph node areas. Plastic surgery.

admit (as it seems from many sources) that it is the best treatment for them. In my humble opinion I cannot agree with those who believe that way, nor with the radio-therapist who says categorically that radio active treatment is the only one for carcinomas of the lip. I still believe that surgical treatment occupies a big place in the handling of such cases but, wish to add parenthetically, that I want to select one well equipped with surgical experience and a thorough knowledge of the lymphatic system of that region, a casual and incomplete review of which would not be out of place at this moment.

Excerpts taken from the study of the lymphatics of the neck by Dorendorf:

No. 1. The lymphatics of the upper lip regularly proceed to the sub-maxillary group.

No. 2. Those of the lower lip regularly enter the sub-mental and sub-maxillary groups.

No. 3. For the upper lip and mucous membrane of the lower lip the lymphatic drainage is regularly unilateral for each half.

No. 4. For the skin and muco-cutaneous border of the lower lip the lymphatics dicussate very freely and drainage takes place to both sides of the neck and even to the deep chains of the same side or to the opposite side of the neck.

No. 5. Finally some vessels from the upper lip and the corner of the mouth proceed to the lower pole of the parotid gland.

When irradiation has been selected as the preferable treatment what I said about the surgeon applies with equal force to the radiotherapist; he should have command of enough radium to do the work properly or a roentgen-ray outfit of modern type which will deliver the quantity and quality of rays needed in such cases. For those of us who are still willing to accept the following excerpt from Channing C. Simmons & Jas. C. Hudson at its par value, it would be a part of wisdom to call upon the surgeon for help and make use of his skill and knowledge of surgical anatomy to complete the good work started by the radiologist: "clinical experience has been in substantial agreement that squamous cell epithelioma of the upper lip are infrequent and the surgical problem is mainly with the lesions of that type in the lower lip and further, that it is also pretty generally conceded that cancer cells cannot be completely killed in the lymph nodes by radiation although the growth may be inhibited by the limiting fibrosis set up."

It must also be remembered that the 15 to 20 per cent of the clinically diagnosed baso-cellular types found in the lower lip are in a transitional stage of baso-squamous development and therefore metastatic in tendency.

In conclusion, it seems to be the treatment of carcinoma of the lips cannot be arbitrarily disposed of by any set method but that the safety of the patient and the best results will be obtained by most complete co-operation of the surgeon and the radiologist, with due regard to the pathologist.

Dr. S. C. Barrow (Shreveport, La.): I have treated carcinoma of the lip for a good many years by a good many methods, and I have observed other methods of treatment employed by other men. My final conclusion is that no method is equal to simple electro-coagulation, under thorough anesthesia. It gives a higher percentage of permanent cures than any other method, not excepting irradiation. Of course, when carcinoma of the lip is confined to the superficial surface, it is a superficial lesion and is easily handled. But how often is it really confined to the surface? And how are we going to tell when it is and when it isn't? Clinical experience tells us that growths that we consider local are very frequently the reverse. Electro-coagulation in carcinoma of the lip gives a minimal amount of deformity and final distortion. The inflammatory reaction that follows it stimulates tissue repair, whereas the action of radium is simply necrosing. In the course of three or four months after electro-coagulation it is astonishing to see how nearly normal the lip is in outward appearance. Of course, this method is preceded by a most intensive irradiation of the lymphatics of the neck and of the chest. It is impossible, otherwise, to be certain that the metastases which so frequently exist are being properly cared for.

As to deep ray therapy, there is no difference, it is known, between deep or high voltage and low voltage when once the spot or point of attack is reached. The effect is precisely the same.

I cannot believe that surgery has today any place in the treatment of carcinoma of the lip, except possibly from the cosmetic angle. For my own part, I am unwilling, after a lip is healed, to see it broken down again by methods of dissection necessary in cosmetic surgery. In the process of repair after any surgical procedure, blood and lymph are particularly abundant at the point of repair, and blood and lymph are the substances cancer cells thrive best on. Such a procedure reminds me of scratching the soil around a plant and watering it to make it grow. That is all right in the garden but all wrong in cancer.

I am so interested in this subject that I am saying as plainly and abruptly as I can that there

is nothing that is holding us back more in the matter of cancer therapy than the attitude of certain surgeons. There are men and women in this country today with curable cancerous lesions who are refusing to see doctors because they are so sure that they will be told to submit to surgery. That is the chief thought in the back of their minds. If surgeons will grant the value of other methods that are less disturbing to the public mind, then we shall get these patients earlier, before there are sloughing, nasty, foul lesions to be dealt with and when cure is possible and probable. We need to co-operate with each other in these matters, and the radiologist is ready to co-operate. But if by co-operation the surgeon means that the radiologist can do nothing until he gives the word, then co-operation is not possible, for that is not the radiologist's idea of it. I firmly believe that it is only a question of time until the profession in this country will admit what is far more generally admitted in Europe, that irradiation is the leading method of cancer therapy.

Dr. Isidore Cohn (New Orleans): Recently I had the good fortune to visit the Memorial Hospital in New York, where probably more cases of cancer are treated than anywhere else in the United States. I happened to be there one morning when Dr. Douglas Quick was in charge of the conference and when his special group was demonstrating a series of cases. Since then a report of their work has been published in the American Journal of Cancer and also in the Annals of Surgery, and I recommend it to your attention.

At this hospital all cancers of the lip are divided into two groups, the infiltrating group and the fungating group. The latter group is handled by surgery, excision followed by plastic operation and irradiation. In the first group the routine treatment is essentially the irradiation advocated by Dr. Van Studdiford, except that they are using radon rather than the radium element or salts. They make use of surface applications of heavily filtered radon on three sides of the growth, held in place with dental modelling compound applicators. They are able to use this method because they have 4 grams of radium and they have their own emanation plant. Burnham prefers the glass tube, but Dr. Quick uses gold or platinum.

From the surgical aspect one point is very important: when the glands are freely movable and have not broken through the capsule, unilateral dissection is well worth while. When the capsule is once broken through, there is no place for surgery. At the Memorial Hospital the limit of surgery is usually the dissecting out of the digastric triangle on one side or both, according to the indications.

Dr. I. M. Gage (New Orleans): For the past seven years I have been in charge of the cancer ward at Charity Hospital, which ward is devoted to the treatment of inoperable carcinomas of the face and neck. During this period there have been a large number of cases admitted to the service. All of these patients have had extensive cervical metastasis associated with a progressive primary focus. A few, however, have had complete eradication of the primary focus. The majority of the cases have been treated with radium, roentgen-ray, surgery, or a combination of one or more of these procedures. The results were practically the same in all the patients; i. e., they all had recurrences at the primary site of the lesion as well as extensive metastasis.

If I had to have carcinoma, and could choose the location, I would choose the lower lip for the following reasons: The primary focus can be recognized when it is of almost pre-cancerous stage; the growth as a rule is slow and the secondary metastases occur late; it is usually confined to the lymph nodes of the same side; distant internal metastasis is rare (according to Crile, in a series of 4,500 autopsies on patients dying from carcinoma of the head and neck less than one per cent had distant internal metastasis); and both the primary focus and the regional lymphatic involvement can be eradicated with excellent chances for permanent cure, even though the disease has been present for some time.

In the treatment of carcinoma of the lower lip, the clinical as well as the microscopic classification should be taken into consideration. The clinical types are three in number: the ulcerative, the infiltrative, and the papillomatous. The ulcerative and papillomatous types are usually of very slow growth, especially the papillomatous. The latter type does not respond well to treatment by radiation, whereas the infiltrative and ulcerative types do respond to radiation, and as a rule a cure of the primary focus can be obtained by radiation alone. The papillomatous type seems to respond better to surgical extirpation, followed by radiation. The infiltrative type responds to radiation better than the papillomatous type, and should, therefore be treated by radiation unless the lesion is very large and surgical extirpation is indicated. In all three types the lymphatic drainage of the lower lip should be thoroughly understood in order that secondary foci can be treated thoroughly. Carcinoma of each lateral half of the lower lip drains into the corresponding lymph nodes of the same side and also the submental group, whereas carcinoma of the mesial part of the lip drains into the submental group and into both sides of the neck. If this is remembered, the secondary foci can also be eradicated.

Unless the lymphatic drainage is taken into consideration and treated, we will have a high percentage of cures of the primary site with a very low percentage of permanent cures, due to subsequent lymphatic metastasis and ulceration, because when the lymph nodes of the cervical region are unilateral or bilateral, becoming fixed to the surrounding tissue, eradication of the disease as regards a permanent cure is almost impossible. I do not believe that we should sanction any one type of treatment for carcinoma of the lip, but a combination of all standard threatments, radium, roentgen-ray, surgery, and electro-coagulation, should be used to suit the individual type of growth. Dogmatism for treatment in carcinoma of lower lip is not permissible at this time.

Dr. Harold G. F. Edward (Shreveport, La.): Neoplastic disease is being attacked today from every angle, and the American College of Surgeons favors, if it does not demand, the establistment of tumor clinics in every institution on its approved list. Carcinoma of the lip, as Dr. Van Studdiford has said, cannot be treated routinely. Every case must be individualized, and the individualization depends, first of all, upon biopsy, by which the nature of the cell structure is determined. Biopsy is a perfectly safe matter with the high frequency current or radio knife.

Lesions which show very little new tissue growth are best treated, as a rule, by either radium or roentgen-ray. My preference is roentgen-ray, using heavy filtered dosage to the lesion and the lymphatics and glands draining the site of the lesion. Lesions which show a considerable new growth are best treated by removal, preferably by electrotherapy, after which either radium or roentgen-ray is applied. If emanation therapy is available, it is the ideal method, following the idea of Regaud, that a small dosage over a long period of time reaches the mother cells in the process of division and so gives the best results.

Personally, I see no place for surgery in this disease. Very few surgeons are capable of doing an extensive block dissection as it should be done, and no matter how skillful they are, they cannot dissect out all the microscopic metastatic areas. It is a too common occurrence for the surgeon to refer a case to the radiologist after he has treated it his way. If irradiation is of prophylatic value, surely it has a curative value.

I agree with Dr. Van Studdiford that oral hygiene is of vast importance. There is no special use in removing an epithelioma and permitting bad teeth to remain. The condition is too prone to recur. Indeed, I am in hearty accord with all of the methods he advocates in the treatment of carcinoma of the lip.

Dr. J. N. Roussel (New Orleans): If there is a subject on which I am convinced the Frenchman is right when he says "chacun a son gout," which means, "Let each man do it his own way," it is this subject of carcinoma of the lip. Getting rid of the initial lesion is almost an academic matter today. Anybody can do it, and the method doesn't specially matter. But after that comes the most important point.

The gentleman who preceded me in this discussion said there was no place for surgery in the treatment of carcimona of the lip. I think he is wrong. I think the sooner a patient with epidermoid carcinoma sees a good surgeon, the better his hope of a cure is. You will note that I said a good surgeon; I don't mean a tyro. I mean a man who knows his business, who knows anatomy and pathology.

When patients with carcinoma begin to have pictures taken of their chests, that is the beginning of the end, and my own feeling is that when the first picture is taken, the radiologist ought to get word to the undertaker, for he will have to take the job in hand in a very little while.

Dr. H. B. Gessner (New Orleans): I rise merely to take up the matter of the V-incision, which has been criticized adversely in this discussion. It certainly has its faults, and it is likely not to include all the cells spreading out from the cancer lesion, but I would point out that surgery of carcinoma of the lip is not limited to the V-incision. It is quite possible to make a quadrilateral incision, and this is what should be done in the greater number of cases. Dr. Grant of Denver taught the profession this incision years ago.

Dr. M. T. Van Studdiford (closing): I am very glad that my paper produced the discussion that it did, for I think one of the chief troubles in the treatment of carcinoma of the lip is that we are all too much inclined to stick to our own line, be it roentgen-ray, radium, surgery or electrocoagulation. Dr. Cohn's discussion shows the big advantage of a general outlook, the advantage of having somebody to help you. The Memorial Hospital has money, an ample supply of radium, finely equipped laboratories, and a staff of expert men, who give the patients the benefit of their combined experience. It is a wonderful thing to see them working together, using the methods best adapted to each special case, and it is a wonderful thing to see how their results have improved over a period of years.

As Dr. Cohn says, they can use the emanation method because of their huge supply of radium. After they have dissected out encapsulated, unruptured lymph nodes, they are able to irradiate along the lines of the dissection with the assurance

that, because of their refined technique, necrosis is not going to occur. Surgeons who have not their facilities cannot use this method. As to roentgen-ray, it makes little difference whether the deep ray is used over a short period or low voltage over a long period, provided the technique of application is understood.

Dr. Gessner's discussion reminds me that Dr. Quick has devised a new operation for the dissection of the lip and plastic repair, which is described in the first issue of the American Journal of Cancer, and which is far superior to the old V-incision, which, as a matter of fact, left the cancer cells outside of it.

BACTERIOLOGY AND PATHOLOGY OF UNDULANT FEVER.*

L. A. HEBERT, M. D.,

LAKE CHARLES, LA.

In presenting this paper, the writer makes no pretense of originality either in style or subject matter. The contents, on the contrary, comprise a summary of correlated facts derived in a search of the literature, presented in hope of creating and stimulating interest.

In December, 1886, Colonel Bruce[1] first observed minute organisms in the spleen removed from a patient who died of undulant fever.

The following year he cultivated an organism recognized as a small coccoid body, but later pointed out that bacillary, as well as coccoid forms occur. In 1897, Bang[2] described the etiological agent of contagious abortion in cattle. He observed that in infected tissues the organisms appeared coccoid in shape. After isolation, however, he determined that he was dealing with a "small bacillus" for which the name Bacillus abortus was soon widely accepted. For more than twenty years, these two organisms, so differently named, and observed and studied by different groups of bacterio'ogists, continued to be regarded as entirely unrelated species. "It was as if twin brothers had been adopted by different families and given different surnames, and for twenty years no one recognized the similarities in the boys because they were seen at different times and in different places." It was Miss Alice Evans,[3] who, in 1918, pointed out that these organisms were morphologically, culturally and biochemically indistinguishable, and serologically very closely related. This observation has been repeatedly confirmed and with this discovery the newer knowledge of undulant fever begins.

Meyer[4] in 1920 recommended the formation of a new genus for these and related species and proposed the name Brucella, in honor of Colonel Bruce. This suggestion has been approved and the name Bruce'la melitensis adopted for Micrococcus melitensis, and Brucella melitensis variety abortus for Bacillus abortus. The latter variety was again divided into bovine and porcine types. The porcine[5] type was isolated in 1914.

It is important to note that McAlpine and Slanetz have recently discussed the possibility of a still more simple classification by the use of biochemical methods. They were enabled by careful determination of nitrogen fractions in cultures to classify the genus Brucel'a into two main groups, namely:

1. Brucella abortus (bovine origin).

2. Brucella abortus (porcine and human origin and melitensis strains).

Discussion of genus Brucel'a would be incomplete without reference to:

1. The para-melitensis group.

2. So-called "Brucella bronchisepticus."

A. V. Hardy[6] says, a classification of strains isolated from human beings cannot now be regarded as a reliable index of the importance of the different varieties as a cause of human disease.

All the characteristics by which microorganisms are commonly differentiated these three varieties of Brucel'a melitensis have in common. Morphologically they are

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small, 0.5 microns, or less, in diameter, to 2 microns long, non-capsulated, non-motile and Gram-negative. Coccoid and bacillary forms occur as well as intermediary oval shapes. They do not form spores. The slight differences in shape are apparently inconstant and are not generally regarded as of value in classification. They usually occur singly or in pairs, though in cultures short chains have been found. On potato there is a slight grayish brown growth after several days, and subsequently the brownish tinge discolors the potato. Culturally, growth takes place slowly in a liquid medium, rarely being apparent earlier than the fourth day, and occasionally not until after ten days or more. Gelatin is not liquified. No indol reaction is produced. The colonies are at first small and transparent dewdrop forms. On agar, the colonies on first subculture usually make their appearance in from 48-72 hours and slowly increase in size. Neither acid nor gas is produced by any variety in the ordinary fermentation tests, and by simple agglutination procedures, the strains cannot be differentiated, according to Evans.

Fresh beef liver infusion pH6.6 (Huddleston) should be used. Prolonged incubation is necessary, and sub cultures from the broth may be made between 4-7 days, for the last time after 14 days incubation before reporting negative cultures on blood. Some strains are 21 days in developing.

Differences in CO_2 requirements must be remembered. For identification, duplicate cultures should be made, one incubated in air, the other in an atmosphere of increased CO_2 tension by the Fitch method, or by adding an acid to a carbonate held in a small container or in a museum jar. Best results are obtained with from 5-10 per cent CO_2 by volume.

By agglutination absorption, the melitensis and abortus varieties may be separated, but the porcine and bovine types are by this method indistinguishable. An important, though inconstant, difference is found in the requirements of CO_2 for growth. Bovine characteristically demands an atmosphere with an increased CO_2 tension, while melitensis and porcine abortus grow in an unmodified atmosphere and are somewhat inhibited by CO_2.

Using medias modified only by the addition of thionin, methyl violet or basic fuchsin, Huddleston developed a simple method for use in classifying the three varieties. A difference in dextrose utilization had been described by McAlpine, and a variation in the amount and rate of H_2S produced was described by Huddleston.

The variety that most commonly causes undulant fever in the United States is undetermined. Evans states: "It is well recognized that pathogenic bacteria lose their virulence when grown on artificial media and this loss in virulence has been commonly noted in the organism of contagious abortion." Undulant fever probably occurs either sporadically or endemically in all sections of the United States.

PATHOLOGY.

Here we are dealing with a proteian disease. The mortality rate of this disease is apparently low (2-3 per cent). Few fatal cases have been observed and for this reason a special effort should be made to obtain a detailed post mortem study in all instances.

Animals, as well as other practical exposures to infective material, would indicate that skin contact is a very probable portal of entry.

The sources of the infection of undulant fever are apparently numerous, but as knowledge continues to accumulate, more and more evidence is presented which involves milk as a formidable vehicle of the disease. The organisms of undulant fever are destroyed by a comparatively low degree of heat.

The lesions found in domestic animals may be mentioned. In the cow, pathologic changes are found in the pregnant uterus

and mammary glands. In the uterus there is a localized or diffuse, acute, subacute or chronic inflammation involving the chorion and placenta and spreading to the endometrium. In the udder there are no gross changes, but on microscopic examination minute areas of subacute or chronic inflammation are commonly found. Reports are to be found that the organisms have frequently been recovered in the supermammary lymph glands. In goats the infection has been shown to be more generalized. The same may be said of hogs. Of interest in passing is the statement of a few authors relative to abortion in pregnant women. It seems they have been unable to find definite records of cases. Although Lawson & Sedgwick report that examination of serum of women who have aborted gave a larger number of positive complement-fixation tests with Brucella abortus than with syphilitic antigen. At best but a few positive infective cases have been definitely proved to have been the causes of abortion in women. In man mention is made of an enlarged liver, basal congestion of the lungs, and occasional involvement of the intestine and lymph glands. Hyperplasia of the spleen has been recognized. Myositis is suggested—weakness, sweating, fever, arthralgia, joint swelling is transient, due to toxin. Hemoglobinemia and erythrocythemia are of moderate intensity. Occasionally there is leukocytosis. The majority shows a leukopenia with a relative lymphocytosis more characteristic, according to Bierring.

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DISCUSSION.

Dr. Foster M. Johns (New Orleans): This paper of Dr. Hebert's is certainly quite timely. Like other diseases that have appeared on the medical horizon in the last fifteen or twenty years very few of us recognized the presence of undulant fever in our midst until a very short while ago. I think it has only been a period of five or six years since Dr. Seemann found the first case, to my knowledge, in the city of New Orleans.

We had looked sporadically from time to time for cases. I found one or two cases in immigrants sick in the Charity Hospital of this city many years ago and had forgottten the occurrence until reminded by Dr. John B. Elliott quite recently.

Since recognizing that a low grade fever with practically normal blood count or a slight lymphocytosis and with profuse sweats may possibly be undulant fever, we now look for the disease by means of agglutination tests and, surprising as it may seem, we are finding quite a number of cases. I think in the past eight or ten months I have diagnosed five cases in the city of New Orleans. One or two of these patients have been rather prominent individuals who have been more or less sick and disabled for periods of six, eight or ten months. While the incidence of the disease has been very slight, its economic importance has thus been considerable.

With regard to the pathology and bacteriology of the disease, I think it will behoove most of us laboratory men to look a little bit closer into these features. I know personally I have carried for three years two cultures, one of Brucella abortus and one of Brucella melitensis, and I have only recently found that the agglutination absorption of one of the strains of bacteira had considerably diminished. This occurrence is from lack of information as to the proper kind of culture media upon which to keep the organism growing over long periods of time.

In regard to the pathology, it is rather interesting that man does not have the same type of lesions that are present in cattle. The closest approach to the bovine type that I have noticed in much search for the literature was recently in a case I saw with Dr. Joseph Hume in which prostatitis and vesiculitis had undoubtedly been due to the Brucella abortus. The number of miscarriages in cows reported by the Department of Agriculture runs into the millions annually. Human abortions due to this infection have not been reported. Thus, from the animal standpoint, the disease is of a great deal more importance than it is with us, and yet how many cases of miscarriage in humans have been properly tested to establish the possibility of this disease playing a part in the incidence of these accidents.

At least the pathology of this disease when completely written will show a great many other occult manifestations in the human being of con-

ditions that are at present unexplainable and which may be attributed to just some such source as this.

Dr. J. M. Bodenheimer (Shreveport): If I understood the essayist correctly, he said that the infection was obtained through the skin. It seems to me there is infection from the skin and not from ingestion by milk. I have seen that time after time. I would like to know if the majority of men place any credence to that assertion.

Dr. W. H. Seemann (New Orleans): This is a very important subject and one that is growing increasingly important to my mind. I think we had a wonderful opportunity this morning when Dr. Underwood was here to get him to relate his experiences, but I suppose he felt a little timid being a guest from another state.

The thing that Dr. Hebert hasn't brought out particularly here, and Dr. Johns referred to, is not the death dealing quality of this disease, but the amount of invalidism and the uncertainty of its length, the debility it produces. In other words, from the standpoint of comfort it is extremely important both in the animal and in the human. I was hoping in this discussion something would be brought out in regard to this very prevalent disease.

In the state laboratory for a good many years blood coming in for typhoid is run with a strain of melitensis and abortus at the same time. That is how I happened to run across this case Dr. Johns referred to. The child had agglutination for typhoid made on several occasions and general blood examinations made, and I just suggested to the doctor that some blood be gotten and tried for undulant fever. To our surprise we got a very strong reaction.

There is a great deal in regard to this disease from the bacteriological aspect, as both Dr. Johns and Dr. Hebert referred to, which has to be worked out. I don't know whether Dr. Johns has had that experience, or Dr. Hebert. I have a blood now that we have run over three times continually increasing the dilution to endeavor to eliminate one of three organisms, but there is agglutination in all three strains.

Only by the help of the men who are out treating these cases can the laboratory be afforded material which will enable them to elaborate on the subject.

Dr. L. A. Hebert (Lake Charles): In answer to Dr. Bodenheimer's question, I will state that it is quite well recognized, I think, that many individuals who develop abortus fever or melitensis fever are individuals associated with cattle or the products of cattle. The skin contact is probably referred to as having some injury and gaining entrance by such injury or lesions or break in the skin.

I wish to thank Dr. Johns and Seemann for their kind discussion and consideration.

THE MODERN METHODS OF TREATMENT OF MENINGO-MYELO-ENCEPHALITIS.*

(INFANTILE PARALYSIS)

ROBT. G. DOUGLAS, M. D.,

SHREVEPORT, LA.

Never before have I read a paper that is so completely naive in utter lack of originality. I wish to assure this audience that herein lies not a single observation or experience that has not been recorded by other workers. This paper, however, is the latest reflection of how an epidemic of infantile paralysis may be expediciously handled in a small community without the advantage of having a medical school or a teaching staff. We are to thank the heads of our Boards of Health for having the medical profession already prepared for the appearance of poliomyelitis before it became active in our section. Dr. Sandidge very early received exact data from the Board of Health of Ottawa where the most recent epidemic occurred in America in 1929. They also furnished him with the complete data and information learned from the Baltimore epidemic of 1928.

A special meeting of our Parish Medical Society was called, the colored doctors being invited and attending, where the problems of the early diagnosis were presented and discussed freely. In addition, a list of symptoms occurring in the pre-paralytic stage, listed in the order of their frequency was sent out to every physician. In addition, attention was called to the laity through the press that every child who was only slightly sick should be seen by the

*Read before the Louisiana State Medical Society, New Orleans, April 14-15, 1931.

family physician at once. The number of new cases that appeared was reported each week in the press. It was rumored at one time, as often happens in epidemics, that the City and Parish Boards of Health were not being truthful as to the number of cases being published, so a list of the addresses of all patients who had or who had recently recovered was printed in the papers and the public was requested to forward information of any case omitted from the published record. The public was advised to keep the children away from crowds. It was a striking fact for me to note that the Sunday School and Church attendance was stopped first and most completely. Summer school continued in its regular session and no cases were reported among the pupils attending it, although all ages were represented.

The panic of the people was very great and was harder to control. It was pointed out to the public that the greatest number of cases of poliomyelitis that we could expect to have if every susceptible person took it would be only 186 out of our total population of 120,000; that only one out of 100 who came in direct contact with a patient ill with polio develops the disease; that the rural and mountain districts show a greater incidence than the cities; that the epidemic was becoming widespread over the nation and no promise of immunity could be made for any district; that the epidemic was mild and not of the fulminating variety; that there was plenty of time for diagnosis and that the serum was a cure. Having dealt fairly and openly with the laity, at the same time educating them, we received their wholesome cooperation with no reflecting shadow on the profession. This effect was salutary as I have never before been so impressed by the feeling of protection the public has towards its medical men. Often they scoff at our knowledge and motives, and the cults grow and flourish, but when crises and emergencies arise, they lean on us.

SYMPTOMS.

In order to discuss modern methods of treatment, diagnosis must first be presented. The syndrome of the pre-paralytic stage can be recognized according to the age groups, the older the child, the more readily one can be lead to suspect the disease. The diagnosis is usually made correctly before seeking confirmation by the spinal fluid. Of course, in time of epidemic, recognition is easier, but since we have every year an occasional sporadic case, we should never examine a sick child without at least attempting to elicit the spine sign. It will also keep us on the alert to recognize encephalitis, meningitis and other nerve pathology earlier. The spine sign is often elicited in tonsilitis, pneumonia, and pyelitis, but these can be excluded easily enough by clinical evidence. The child with poliomyelitis is more alert and cooperative than one suffering from syphilitis, tubercular or cerebral-spinal meningitis.

The following are the universally recognized signs of poliomyelitis in the pre-paralytic stage:

1. Fever is a constant symptom, rarely ranging above 101 degrees F.

2. Headache is frequently complained of by older children and is sometimes extraordinarily severe.

3. The spine sign is most constant. To attempt to pick up any child's head while recumbent and brutally thrust it forward on the chest will be resisted voluntarily, but the sign must be elicited by the child sitting up with the knees drawn up and attempting to kiss the top of the knee. A quarter laid thereon will stimulate him to effort. If the sign is present he will begin in good faith, but pain in the spine will cause him not to flex it, and no urging or bribing will persuade him to again attempt it. A modification, called the "Amoss' tripod sign," is useful in older children and adults. The patient is seated on a table, leaning forward until his hands are on the edge of the table, bearing part of the body's weight.

On being asked to put the hands on the back of the neck or to fold them, he rapidly returns them to the tripod position to ease the pain in the back.

4. Rigidity of the neck, and distinct resistance to anterior flexion. Rarely is there retraction and never total limitation. The patient can tilt the head on the neck and does not bind the lower part of the neck. Lateral motion of the head can be made with ease.

5. Drowsiness when the child is left alone, and irritability when aroused; never comatose, but alert when disturbed, differing entirely from one with meningitis.

6. Vomiting is not a presenting symptom, but will occur once or twice on the first day.

7. Constipation is the rule.

8. Retention of urine is frequent.

We now turn specifically to the epidemic of poliomyelitis which occurred in Caddo Parish from May to November, 1930. Caddo Parish, inclusive of Shreveport, has a population of 120,000, which had an expectancy of 186 cases, according to the percentage brought out in epidemics in other cities. Caddo Parish developed 70 cases. Furthermore, there were no fulminating cases, nor the early morning paralysis of children, nor did there exist the so-called "dromedary" type where the illness developed as a fever of a few days duration, followed by a short remission, with fever again, and then paralysis, save in once case, an adult female of 22 years. It is possible that the use of the serum in the pre-paralytic stage caused our epidemic to be called a mild one. In every case where the serum was given in the pre-paralytic stage no paralysis ensued.

The following statistics are based on the study of the 50 cases reported to the City and Parish Boards of Health, the additional 20 cases being not reported, but recognized only after recovery when some muscle weakness developed.

INCIDENCE.

I. Seasonal: The cases were reported in the following months: April, 1; May, 6; June, 16; July, 18; August, 5; September, 3; October, 0, and November, 1. The first case occurred on April 29, and no new cases were reported until almost a month later—May 21. The disease occurred during a season of unprecedented drouth. For three months no rain fell and the temperature continued high during the entire period. The cases seemed to occur in cycles—as there were periods of five or six days when no cases were observed, but these periods would be followed by a sudden outburst of new cases within a few days. The week of our maximum temperature, when the thermometer registered over 100 degrees every day, there was practically a complete cessation of the disease. In other reported epidemics of poliomyelitis the peak of the epidemic is usually reached in September, but, by a strange paradox, our epidemic did not behave like others, and with the appearance of cooler weather our cases showed a marked decrease. It is hard to explain the decrease of cases as the season progressed, except that the unknown cause of the condition had become attenuated and could no longer produce the disease—a condition which is observed often in measles, a disease of much higher susceptibility.

II. Age Incidence: The ages of the patients reported ranged from 10 months to 22 years. There were five cases in children under 2 years of age; eight in those 2 years old; seven in 3-year-old group; five in the 4-year-old group; five in the 5-year-old group; four in the 6-year-old children; none in those 7 years old; eight among the 8 years old; two among 9-year-old children; two in the 10-year group; none in the 11, one in the 12, and two in adults of 22 years. The greatest number of cases occurred in children from 2 to 6 years of age.

III. Sex Incidence: The number between the male and females was practically the same.

IV. Social Strata: The disease was not selective in regard to station of life—wealth or poverty. Cases were as common in the so-called wealthy classes as among the poor.

V. Race: Among the reported cases 36 were among white children, and 14 among co'ored children. The colored race seemed slightly, but to no great extent more susceptible than the white.

VI. District: The disease was not selective in regard to location, although the rural district showed a greater number of cases than the city; a condition which has been observed in other epidemics of poliomyelitis—the more dense the population, the fewer the cases in proportion. In the city the cases were well scattered—there being no two cases in the same block, nor no two in the same family. However, in another part of North Louisiana two cases in the same family have been reported. In the rural district there were more cases occurring in children between 9 and 12 years than in the city.

INVOLVEMENT.

There was not a general involvement of the extremities as is seen in many epidemics. The lower extremities were most commonly affected, and only occasiona'ly both extremities. A combination of upper and lower extremities was seen in only three cases. Only one death was reported from this parish, making an extremely low death rate of 1.4 per cent. The official statistics will seem higher than that, due to the fact that some fatal cases were brought to us for treatment from outside our parish. Only three cases of the bulbar type were found, two with facial paralysis and one involving the eye muscles. Paralysis of the b'adder muscles was seen in 2 cases.

NON-PARALYTIC

It is difficult to evaluate the non-paralytic or abortive types, which are claimed to be very common. It is hard to say a case is non-paralytic in the abstract. There were no cases that could be so called in our series. These children had fever, a demonstrable rigidity of the neck and spine, though the spinal fluid cell count ran only from 1 to 7 cells.

Semi-abortive types are found in those children who have no symptoms on the second and third day, but the parents notice a faint limp when the child is walking. This abortive type is apparently confined wholly to the lower extremities as the upper can scarcely be tested.

SPINAL FLUID CELL COUNT.

According to Draper the cell count is in direct proportion to the severity of the i'lness, both as regards life and paralysis. Counts above 1000 are almost always fatal. No paralysis will occur in a case with a count below 20, although weakness of 6 weeks duration will manifest itself. This weakness improves very rapidly in the first few days, as if the spinal synapses are recovering from shock.

The highest cell count in our series was 1250. This case escaped with a gesture of right facial paresis.

In differential counts the polymorphonuclear leukocytes predominated 70 to 80 per cent, being rapidly rep'aced by lymphocytes. A spinal puncture was done only when clinical evidence warranted it and it was an affirmative rather than a diagnostic procedure.

SPECIFIC ANTIBODY SERUM.

The serum we used was obtained from the Shrine Hospital for Crippled Children located in Shreveport, through the courtesy of Dr. H. A. Durham, who is in charge. No convalescent serum was avai'able. It was obtained from children of from 8 to 10 years of age. These serums were all pooled. Dr. Mathews, Pathologist of the Charity Hospital prepared it, Wassermann negative

and sterile, 25 cc. to the glass ampoule. One dose of serum was given in the gluteus maximus upon diagnosis. There was a subsidence of fever and symptoms in from 6 to 12 hours, with a well child within 24 hours. None of these patients had any anaphylaxis whatever.

NOTES ON THE CADDO EPIDEMIC.

1. Opisthotonous did not occur in any of our cases.

2. High temperature was seen in but 3 cases.

3. Convulsions occurred in but 3 cases, these being very small children.

4. There was no diarrhea as is often described, constipation being the rule.

5. Once paralysis developed, serum has no effect either as to aiding the paralysis or arresting its spread. We had 2 cases of the ascending type.

6. There was no hyperesthesia until appearance of paralysis.

7. There were no cases of the fulminating type.

8. There was but one presenting sore throat and that was in the one "dromedary" we had, making the significance of the throat doubtful.

COMMENT.

Moro in Europe has demonstrated that adults have an immunity to poliomyelitis, except the occasional immunilogical defective who develops symptoms. Through much titration of the sera of adults with the virus he has determined that city bred adults of over 15 years of age have the specific bodies to immunize a patient in the pre-paralytic stage. Only 50 per cent of the adults in the rural districts have this immunity.

H. J. Shaughnessy, P. H. Harmon, and F. B. Gordon, Chicago workers, find that 80 per cent of normal adults serum will neutralize the virus in 1:30 dilution, corresponding roughly to the maximum practicable therapeutic dose in human medicine.

If these workers are correct and can be verified clinically, the complication of acquiring the serum from only old poliomyelitis cases will be much easier and simpler.

DISCUSSION.

Dr. M. S. Picard (Shreveport, La.): Dr. Douglas is too generous in his statement that this paper was written in collaboration with him, as the largest part was written by him.

As soon as it became evident that we were dealing with an epidemic of infantile spinal paralysis rather than the sporadic cases we see annually, with the cooperation of our health officer, Dr. Sandidge, we decided to adopt the methods used in the Baltimore and Ottawa epidemics as they represented the most recent experiences in prophylaxsis and treatment.

I recall with a great deal of vividness the first case in which we used immune serum. This case was seen by me in consultation with Dr. Douglas. A spinal cell count of 1250 was present, 20 c.c. of immune serum was given intramuscularly. To the eyes of the novice and the inexperienced, our results were marvelous only a gesture of a facial paralysis occurred. This case appeared more marvelous to us for according to Draper, the prognosis of the case in regard to paralysis and life is in indirect proportion to the number of cells found in the spinal fluid, high counts meaning death or paralysis.

Our experiences did not confirm this as paralysis occurred in cell counts of 50 as well as 500 to 1000. Our experiences confirmed the works of others that the first cells were polys, later becoming mixed, and finally the lymphocytes were markedly in excess or consisted entirely of lymphocytes. Long continued presence of polys were of bad prognostic value. My reason for saying that high or low cell count was of little significant value in that two deaths occurred in the ascending type with a cell count of less than 100. Three types of purely meningeal form were seen. These children showed a cell count between 3000 and 20,000, no organism were found in the spinal fluid. Post-mortems held on two showed a basal meningitis.

These children were taken violently ill with high temperatures and convulsions, death occurring in twenty-four hours. We were uncertain of the diagnosis of these cases until Dr. Martel of Homer, Louisiana, told us of three cases in the same family, two dying of high temperature and convulsions, the third developing a general paralysis.

I wish to emphasize two symptoms mentioned by Dr. Douglas that are the only ones of real value in the diagnosis of infantile paralysis in the preparalytic stage, rigidity of neck and spine. There is an anterior rigidity of the neck. If you lift up the neck you meet the resistance. There is no fixed rigidity of the neck as in meningitis. The child will turn its head from side to side following voices or footsteps without effort.

There is a peculiar rigidity of the spine, if you lift up the head the trunk seems to run away from the body.

All cases wher ethe immune serum was used after paralysis had set in were futile.

We had no experience with the work of Shaughnessy and his associates, Aycock and others. Their works came out after our epidemic was fully developed and was abstracted after our epidemic had ceased, hence was of litlle value to us.

According to them only four out of seven immune serum were potent in contrast to 13 out of 15 or 87 per cent of normal blood, that is blood from the usual donors who have never suffered from the disease.

The nearest analogy to this is the use of convalescent serum in the prophylaxsis of measles. This differs in this manner that the potent blood was from donors who have had measles even though years distant.

Clinically our work did not confirm the work of Shangnessy at all in regard to the potency of immune serum. We had no failures in those cases when the serum was used in the preparalytic stage. Our results in the use of the immune blood were so brilliant that I would hesitate a long time before using normal blood as a substitute.

It is a long distance removed from animal experimentation to human demonstration and results must be shown by its use in succeeding epidemics before I would dare to use it except as an emergency measure.

Strange as it may seem the apparently neglected and untreated cases showed a greater tendency to spontaneous recovery than those subjected to our more scientific treatment.

Dr. H. R. Marlatt (Homer, La.): The poliomyelitis in Claiborne Parish, about fifty miles East of Shreveport, reached its height about June 20. The first case we had in Claiborne Parish was the child of the Principal of one of the rural high schools. The baby was six years old, a boy. This was the last week in May. About a month later cases were reported in about four points of the Parish.

Claiborne Parish is about 45 miles North and South and about 50 miles East and West with 33,500 people in it. You can get an idea of the territory. Shreveport is 50 miles, El Dorado fifty, Ruston forty and we have no hospital facilities. As these cases developed most times the doctor was called in after the patient had developed some paralysis. In very few cases was the doctor called in the early stages. The people were very much frightened.

Dr. Douglas said the idea of isolation probably was of no value. Maybe it was, but it seemed to be the only way in our rural section to impress the people they had something on their hands. We proceeded to scare everybody into their own homes, which they did. During the month of June there were eighteen new cases. In all, we had forty-six cases in Claiborne Parish. Six white people had poliomyelitis. There are now eleven cases in Claiborne Parish that have considerable paralysis. There are fifteen more that have some. The rest of them are practically well, with just some slight impediment when they walk.

None of these people received any treatment. These people had no money to call a doctor. They were in the center of this drought-strickened area toward Lincoln Parish. All I could do was run around and find where these people were. I told them to go to bed and stay there. "Don't get up. Stay quiet. Take your usual cathartics, but for heavens' sake don't be trying to move." That was the advice.

In the north part of the Parish, which is toward Magnolia, there is a very congenial chiropractor. He promptly put in the local papers, "A sure cure for poliomyelitis." He wanted to manipulate everybody. I got in a fight with him once but that didn't do any good. He proceeded to rub every person that he could get hold of in Northern Claiborne Parish, and the people who are paralyzed seriously are the ones living in the section where that man and his assistant gave treatments. The people in the South and East section toward Ruston, toward Lincoln Parish, have made remarkable recoveries.

This school principal's child was taken sick and the doctor was called, and I believe now in under treatment in the Shrine hospital. Two cases occurred in Haynesville, but none in Homer. The rest of them were in the most isolated parts of the Parish.

The most interesting part of these white cases was their relation to the first case that came down.

They had a party at that place to celebrate a birthday. I don't know what connection these relatives had to this first case that developed among the colored people who had it. The colored people who had it were invariably centered around the people who visited this home. We locked the town up right.

I don't believe it did any good, but psychologically, it certainly frightened them and they stayed at home. By the end of July it was practically stopped.

In all, as I say, we had seven deaths out of forty-six cases. Fifteen have some paralysis, eleven are badly paralyzed, and the rest are practically well.

Dr. P. A. McIlhenny (New Orleans): I was very much impressed by the doctor when he stated that he advised all of these patients and parents to keep the patients quiet.

The terrible deformities resulting from poliomyelitis illustrate beyond a shadow of a doubt the faults that occurred in the treatment of the paralytic and post-paralytic stage.

Any child or individual suspected of having poliomyelitis should be kept absolutely quiet. Do not move them and do not attempt to entertain them. Keep them absolutely as quiet as possible and establish as nearly a perfect physiological rest as is compatible with the treatment of the acute condition.

After the stage of paralysis has occurred the affected limb should be supported in a median position by a simple, light splint which can be easily made of any ordinary pasteboard box, and the child allowed to remain in the most comfortable position possible with the avoidance of any attempt to simulate contractions of the affected group or even to increase nutrition of the part by massage. By supporting the part in the median position we prevent deformity, and that is the main point of my discussion, the prevention of deformity.

There are three types of what I might term paralysis. The most serious type is the one in which the cell has been completely destroyed and no power can ever regenerate action in that muscle; the second, in which there has been partial damage and there will result a weakening of the muscle; the third, in which there has been a transient inflammatory condition which will subside and you will have complete regeneration of nerve function.

During the second stage in which there is muscle soreness which may last for six weeks, the part should be left absolutely alone except for support in the median position.

Years ago we thought our duty was to attempt stimulation in the affected group and ordered massage and electricity with the result that the poor little individual cried with anguish at the second or third visit of the attendant who gave those treatments. It is now our practice to avoid anything which will cause discomfort to the individual, and prevent deformity by supporting the part in a median position and so prevent contraction.

If restoration of function is going to occur, you may expect some improvement up to two years after the initial attack. During that time it should be the function of the practitioner or the specialist to attempt to prevent deformity by supporting the part in the median position. After the muscular soreness has subsided you may then begin gentle massage and advocate active motions without weight bearing until some reestablishment of function in the partially affected group of muscles has occurred. No operation should be attempted to reestablish function in the affected group of muscles until two years after the initial attack.

I had a most decided demonstration of the too early operation. A case which I had seen about six months after initial attack, with a paralytic club foot due to an atrophic or partial paralysis of the abductor group of muscles, was operated on in another city, contrary to my advice, by a muscle transplantation being done to correct the apparent paralytic club foot. Two years later I had to do a fixation operation at the ankle to overcome a marked flat foot deformity which had been produced by the transference of the abductor group of muscles to the abductor side, and then later a restoration of function in the apparently or transiently paralyzed abductor group.

So, I beg of you, support the part during the paralytic stage or the muscle-soreness stage and so prevent deformity and possibly obviate the necessity of operation for the correction of deformity later on.

Dr. R. G. Douglas (closing): I am very glad that Dr. Marlatt arose to discuss this paper. He was a giant in that epidemic he had over there. He had to do all the work by himself, and he grabbed up the 33,000 people and shook them like a dog would a rat. He made them behave. It was the only thing he could do. He was not able to educate his people as well as we were, as they were thinly distributed over a wide area. They didn't have the advantage of the daily press, and he had to do all of the educating by himself. With us, we had 140 doctors who talked about the epidemic almost every day, both over the telephone and by professional calls.

I think it is a well recognized fact that if you begin to treat these cases too early, after paralysis, as Dr. McIlhenny so well brought out, they don't heal nearly so rapidly. That is another quarrel we have with the cultists, the osteo aths and the chiropractors. They distribute their propaganda, "We can help these people," and they have the big alibi, "The doctor can't do you any good, while if I treat you it may do some good," but as a matter of fact each patient they manipulate is made worse. I want to thank the two doctors who discussed the paper, and I want to thank the audience for their kindly reception. I thank you.

SINUS DISEASES AND THEIR RELATION TO EYE DISTURBANCES.*

MEDICAL TREATMENT OF SINUS DISEASES COMPLICATED BY EYE DISTURBANCES.

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Medical treatment of inflammatory infections of the accessory cavities of the nose, namely the maxillary antra, the frontal sinuses, the ethmoid cells and the sphenoid sinuses, may implicate in their diseases the orbit and the optic nerve. This most frequently occurs in disease beginning in the ethmoid cells for the latter are separated from the orbit only by the thin lamina papyracae which frequently has small openings in it. The most posterior ethmoid cells frequently extend into the small wing of the sphenoid and then come in close relation with the optic nerve because they now border on the optic canal, and may extend so far beyond the median line that they actually adjoin the optic canal of the opposite side.

It is now very generally accepted both by ophthalmologists and rhinologists, as a clinical fact, that diseases of the accessory sinuses frequently affect the ocular apparatus secondarily. So certain is the fact at present that the well-informed rhinologists seek for early symptoms of inflammatory disease in the eyes of all sinus patients, while the ophthalmologists are equally solicitous in several types of orbital and sinus disease to ascertain if possible, if some focus of infection may not be present in the neighboring para-nasal sinuses. For a long time, apparently the visual apparatus was looked upon by the oculist as a field which was pretty thoroughly isolated, and one in which the diseases which affected it arose largely within its own very limited environment. This idea, of course, has been discarded.

Inflammatory infections of the above named cavities are generally the result of an inflammation of the nasal mucous membrane. This may be either an acute or chronic inflammatory process.

Very little progress has been accomplished in the treatment of acute rhinitis. So far there is no specific, since it is an acute inflammatory affection. The general principles of treatment for inflamed tissues are indicated, and the treatment varies according to the stages of the disease.

In the first stage, rest in bed, good elimination through the skin, kidneys and bowels, and some soothing application to the affected parts constitute the best means of treatment. In the mild cases that are due largely to disturbance of nasal circulation, and not to bacterial infection, this method of treatment often aborts the cold. Since a common cold is usually regarded as a trivial disease, and one which gets well in most cases without any special care, it is not easy to enforce a period of rest in bed. In the beginning of this ailment, a saline purge is helpful, especially in plethoric individuals. Castor oil is very good for children, but a physic of some kind is essential for all. Large quantities of water, taken hot, gives satisfactory elimination. Lemon or orange juice

*The following three papers were read before the Section on Eye, Ear, Nose and Throat at the Sixty-fourth Annual Session of the Mississippi State Medical Association, Jackson, May 13, 1931.

should be added to encourage drinking of large amounts. If the patient is in bed and warmly covered, large hot drinks produce free perspiration and free diuresis. Dovers powders given according to the age of the patient and sodium bicarbonate given in ten grain doses three times a day, will be highly beneficial.

During the second stage the patient is made more comfortable by giving small doses of atropine. If nasal blockage be severe, relief is often obtained by local applications of a week cocain solution, two per cent followed with silver of nitrate, one to two per cent and an ephedrine solution. Cocain solutions, however, should never be given to the patient to use, since their too frequent employment produces a reaction which increases nasal blockage. Provision for adequate drainage of the sinuses at least once each day is an important measure in the prevention of sinus disease.

In the third stage, if the secretion is abundant and thick, and difficult to remove by gentle blowing of the nose, suction is helpful, being carried out with especially constructed tubes, rather than the use of an olive tip that fits into the nostril. The suction should be used daily, inserting the tube under and around the turbinates, and all secretions removed. Shrinkage of the swollen nasal membranes previous to suction is necessary. After shrinkage by application of cocain and ephedrine solutions to the mucosa, and removal of mucus by suction, douching the nose with warm normal salt solution, is grateful to the patient, and a valuable remedy in the treatment of rhinitis.

Acute frontal sinus disease is best managed by treatment of the rhinitis, which accompanies it, and usually is the etiological factor. Restoration of normal drainage of the sinuses is very important, because the naso-frontal duct enters the nose under the anterior portion of the middle turbinate, and efforts towards opening the duct, and keeping it open, must be made. After shrinking the engorged nasal mucosa, with a weak solution of cocain and ephedrine, a small pledget of cotton is moistened in the same solution and is inserted under the middle turbinate where it is allowed to remain from ten to fifteen minutes. Shrinkage of the nasal tissue in this way is usually sufficient to open the ostium. Of course the shrinkage is temporary, but sufficient to drain the sinus, especially if suction is used immediately. Silver nitrate solution, one to two per cent should be applied, followed with mild oily spray. This will usually give relief if seen early, except in the more severe cases. If the infection is violent, such as we have following epidemics of influenza, local medication is not sufficient. Especially is this true where the middle turbinated body is hypertrophied and will not shrink with medication. In some cases the middle turbinate is jammed closely against the naso-antral wall. If this be the case, after cocainizing the parts, a flat bunt elevator should be inserted under the turbinate which may then be fractured and pried out into the nasal cavity, which uncovers the ostium and improves drainage.

Chronic supperative frontal sinusitis does not usually respond to local and general treatment, and is essentially a surgical condition.

The treatment for acute ethmoiditis and sphenoiditis should be directed toward the elimination of the infection, as quickly as possible, and is essentially the same as for acute coryza. The nasal mucosa should be thoroughly shrunk and then the nasal cavities should be irrigated with a hot saline solution. Oftentimes a great deal may be accomplished by inserting a pledget of cotton soaked in a 25 per cent argyrol solution into the nose, and allowing it to remain there about twenty minutes. If there is much pain due to congestion of the nose, an analgesic, containing a small amount of atropine, should be given, which tends to dry up the membranes. It is seldom necessary to resort to any operative interference

during the acute stage, unless the infection is retained in the sphenoid sinus, resulting in an empyema. In such cases an opening must be made to establish free drainage. In the treatment of chronic inflammatory conditions of the ethmoid and sphenoid sinuses, especially in the hyperplastic cases, something may be done in the form of medical treatment, provided no systemic symptoms, or symptoms of pressure are present, such as beginning congestion of the optic disc. During the attacks of severe congestion where the patient seems to have a cold in the head, the nasal mucosa should be shrunk and a pledget of cotton placed in the region of the middle turbinate and allowed to remain about ten minutes, then removed and the nose irrigated with a suction douche apparatus. As a rule the washings will contain pus, and should be continued until free from pus. The area then should be treated with silver nitrate solution, one to two per cent and sprayed with a mild oil. This procedure should be resorted to each day until little or no pus returns. A culture may be taken from the secretion and a vaccine made which should be given every third day for ten doses.

Medical treatment of mild types of acute infections of the antrum of Highmore, is much the same as that for simple acute rhinitis. Early relief of the nasal cold which caused the sinus disease provides free drainage, and good drainage of the sinus usually insures speedy return to the normal of the inflamed and infiltrated mucous membrane. For cases in which the sinus is more violently infected, as when the affection is a complication of a severe head cold, which accompanies la grippe, or one of the exanthemata, measures directed to the disease in the antrum, in addition to nasal treatment will be necessary.

The first essential in the treatment of an acutely infected suppurating antrum is to keep the ostium maxillaire sufficiently open to provide ample drainage until resolution of the diseased structures is complete. To accomplish this it is necessary to shrink the nose thoroughly, using a weak solution of cocain and ephedrine, placing a small pledget of cotton moistened in the same solution under the anterior third of the middle turbinate, where it is allowed to remain fifteen minutes. The effect is temporarily beneficial in opening the nose and uncovering the ostium of the sinus. The effect of the ephedrine solution is more prolonged than that of adrenalin, and the ostium of the sinus remains open a correspondingly longer time. When the tissues of the nasal fossa are shrunken, the nose should be cleansed of all mucopurulent material. Douches of hot normal salt solution are valuable for this purpose. Suction and cleansing of both nose and antrum by negative pressure is of much value, and should be used each day. The most suitable home treatment consists in both general and local medication, a prescription being given for ephedrine solution, containing menthol and camphor, to be used every three or four hours. The douche of normal salt solution may be used at home twice daily and is advisable unless stoppage is sufficient to make it dangerous, except in the third period of acute rhinitis, when nasal secretion is abundant, and the mucous membrane less sensitive, the use of an alkaline spray in the nose is often harmful. When an alkaline spray is indicated, Dobell's solution is very good. When nasal cleansing is complete, equal parts of albolene, and chloratone inhalant, which are antiseptic and soothing are sprayed into the nose.

Inhalations of hot medicated steam, are often grateful and helpful, An efficient

solution is prepared by adding a teaspoonful of compound tincture of benzoin and ten grains of menthol to a pint of steaming water. Hot steam from this solution is inhaled for a period of five minutes, usually twice a day, the patient being instructed to remain in a warm room for at least twenty minutes after each inhalation.

When pain is severe, as it is following complete closure of the infected antrum, with retention of secretion, the administration of an analgesic is necessary.

Sometimes neither nasal treatment nor general medication will give much relief, or have any effect on the progress of the disease and relief of pain. In such cases the pent-up fluid in the antrum must be evacuated. This can very easily be done by simple irrigation of the antrum. Puntcture of the maxillary sinus for the purpose of dainage is made through the asseous wall under the anterior third of the lower turbinate, this being the site of election, especially if it is probable that several irrigations of the sinus will be necessary. The wall usually is thin and the instrument penetrates without much pressure. After the antrum is perforated it should be irrigated with normal salt solution, having a temperature of 105°F. An ordinary rubber syringe or a gravity bag may be used to drive the fluid through the cannula. Repeated irrigations of the antrum, with local medication to the nasal cavity will be sufficient to relieve all clinical symptoms and apparently cure a great number of acute maxillary sinus diseases.

When chronicity is once well established, sprays, douches, irrigations or climate usually have little beneficial effect. The disease is then surgical and requires well directed surgical treatment.

THE SURGICAL TREATMENT OF SINUS DISEASES COMPLICATED BY EYE DISTURBANCES.

FERN CHAMPENOIS, M. D.,

HATTIESBURG, MISS.

The title of this paper is not my selection, which means that had the choice been left to me I most assuredly and emphatically would have chosen a subject more in keeping with my limited experience. But when my very good friend, Dr. Gaudet, had sufficient confidence in my ability to delude himself into believing that I could do his program justice there was nothing left for me to do other than make a valiant effort to justify this misplaced confidence.

This symposium of eye diseases in relation to sinus involvement is very interesting, rather complicated, and by no means easy as to positive diagnostic relationship and the surgical procedures necessary to render a cure. So it is, that if we who have this assignment can present a comprehensive picture of the subject as a whole, we will have justified our chairman and interested you gentlemen.

My contribution to this symposium is limited to the surgical means commonly used with the expectation of relieving the eye disturbances. So, assuming that my predecessor, Dr. Harper, has shown through the various diagnostic means the sinus or sinuses involved, I shall attempt in a brief way a description of the surgical interference necessary for the relief of these abnormal eye conditions. Of course, you gentlemen will not expect anything new, this being an old subject, but a review will refresh our memories and open up avenues for discussion.

It is my opinion that the most serious eye disturbance, retrobulbar neuritis, is due to an involvement of the sphenoid and the posterior ethmoid cells. Some maintain that the sphenoid is mostly at fault on account of its relationship to the optic

foramen. In any case, we find that both are usually involved in this post optic condition and it follows that the surgical attack must be directed toward them.

Whatever method is used, and there are many, complete ventilation and thorough drainage is imperative. And again, we must decide between the intra- and extra-nasal routes, giving preference of course to the extra-nasal route when the frontal also is extensively involved. Due to the fact that many of us who live in the smaller cities, are handicapped by lack of material, I believe it wise to operate through the nares, because this is the less radical operation, and we would have almost an equal chance for a good result. For fear some of you might truthfully accuse me of being surgically timid, I must boldly say that even in the hands of the best operators a 100 per cent surgical technic does not always mean a 100 per cent recovery.

I am sure it is unnecessary to remind you of the importance of the anatomical relations of these two surgically prominent sinuses, excepting to say that in dealing with the ethmoid cells we are in close relation to the internal wall of the orbit, only separated from it by a thin plate, the lamina papyracea which covers the middle and posterior cells, and that in attacking the anterior wall of the sphenoid we must be careful not to injure the roof which is in close relation to the meninges, optic chiasm and the optic foramen.

In describing the surgical technic I use in exenterating the ethmoid cells and opening the anterior wall of the sphenoid, I fear that none of you will recognize any specific operation as my method is the result of experience, accruing from the observation of many surgical procedures. However, it serves my purpose, but if you should not agree with me just tell me your method and if I like it I will add it to my armamentarium.

It is unnecessary to state that this operation through the nares is done under a local anesthesia, using a ten per cent solution of cocain with adrenalin. It is applied by means of pledgets of cotton inserted over and under the middle turbinate, followed by application of the solution on applicators in the region of all cells and to the anterior wall of the sphenoid. Complete anesthesia takes place in fifteen or twenty minutes.

The middle turbinate is completely removed with a Balanger swivel knife or scissors aided by the snare, after which, the cells are carefully and thoroughly broken down and curetted by means of a right angle knife and the curette. There is often bleeding at this time which necessitates control with packs and adrenalin. When the bleeding has discontinued, and if the labyrinth has been wholly exerated, the ostium of the sphenoid can be seen. This opening is inspected and if there is evidence of disease the opening is enlarged by breaking through with one of the many sphenoid instruments. This opening should be made as large as safety admits, including the floor, as nature tends toward closing the wound. Most operators advise against curettement of the sphenoid on account of its proximity laterally to the cavernous sinus and above to the optic nerve. Packing is to be avoided but if there seems to be a tendency to bleed, pack with iodoform gauze saturated in some bland oil. I believe the majority of these cases handled as described above do better than when operated extra-nasally, even though the frontal is also involved, unless we have to contend with that condition of extensive polypoid growth complicated by more or less disease of the mucosa and bone. Then of course the route of choice would be extra-nasal.

Some of the more important indications for the extra-nasal radical operation are as follows: When the roentgen-ray shows a general paranasal sinusitis; when there is continual headache in spite of treatment

and irrigation; when rhinoscopic examination shows nasal cavity full of pus and polypoid growths, and in fistula and threatened cerebral complications. But we must remember that in advising the external radical operation that the patient does not always get a perfect cure—and this holds good in any radical operation on the nose no matter who is the operator. I have seen many so operated upon who, though relieved of the eye complications, still have trouble with their sinuses. I am sure quite a few of you will bear me out in this statement.

Before attempting a brief description of the extra-nasal radical operation as performed by me on the cadaver and a very few trusting patients, I would like to call your attention to how few eye diseases are induced by serious sinus involvement. It would appear that there would be much more eye trouble from sinus infection. My experience has been that foci of infections in teeth and tonsils are as much to blame as the sinuses. However, this is foreign to the subject matter, but I wondered if you gentlemen had also found this to be true.

Candidly, I must admit that my experience in doing this operation, the external radical on the frontal, ethmoid and sphenoid, is quite limited; first, because I see very few cases wherein I think this necessary; second, this is a very serious and difficult procedure and only men of large experience should undertake its performance; and, last but not least, those patients who consult me have a decided opinion against this operation, either through fear of the bad cosmetic after effects or through having known cases unsuccessfully operated upon.

Presupposing we have concluded that the ethmoid and sphenoid sinuses are responsible for an eye complication, with the frontal associated, and that the inner route has been excluded or already tried, we would endeavor to perform a Killian operation or one of the various modifications thereof with the additional exenteration of the ethmoid labyrinth and the opening of the sphenoid.

I hardly believe it is necessary to give a detailed outline of the steps in this operation as I am sure all of you are familiar with the technique, and besides our chairman has kindly limited my time but should he feel so inclined I would appreciate very much if he would elaborate; you know he is probably doing more of this work than any other man in the state.

A general anesthetic is required. The incision is curved through the eyebrow down the side of the nose to a point about the middle of the ascending process of the maxilla, this carried through to the periosteum. Bleeding must be controlled as it is rather severe at this stage. The overlying soft parts are desected from the periosteum as far as is necessary to expose the field, care being taken to protect the eye. The periosteum above and below the orbital ridge is elevated, leaving intact that on the ridge as in removal of the outer wall and floor of the frontal the ridge should be left for support and cosmetic purposes.

In elevating and retracting the periosteum away from the floor of the frontal care should be taken not to injure the pully of the superior oblique muscle, but it has been shown that should it be damaged there would be no permanent injury. After the floor and the outer wall of the frontal have been removed and the diseased mucosa curetted, the ethmoid cells are opened in the region of the superior portion of the lachrymal bone and completely exenterated back to the sphenoid which is now opened as completely as is deemed necessary. The nose it packed with iodoform gauze and the external wound is closed. If no untoward symptoms arise the pack is removed about the third day, and these procedings being thorough, the results are usually very good. I sincerely trust that

this brief resume will be an incentive for a full discussion, bringing out the various steps more in detail.

In reading this paper I have not touched upon the surgery of the maxillary antrum because, seldom if ever, is it directly responsible for any of the various eye disturbances. At least this is true in my experience, but since some authorities claim that a diseased antrum causes certain disturbances it might be well that I describe briefly my method of attack. When I first began this work twenty odd years ago the Caldwell-Luc operation was favored for the relief of the chronic antrum. I did my share of these and still do when the antrum shows evidence of polypoid degeneration, but I have found that the majority of chronic antrums can be cured by a less radical operation and this means the making of a large intransal antral opening that refuses to close. Nothing is lost if later the antrum has to be opened above the alveolar process for the purpose of curettment.

It seems rather unnecessary to offer a description of making an antral opening as it is rather simple, but would like to impress you with the fact that many failures are due to the opening closing, so by all means be sure that it is sufficiently large that this will not occur.

In *conclusion* will say that surgery on the sinuses when ventilated and drained thoroughly is usually very satisfactory, but on the other hand a one hundred per cent technique does not always mean a one hundred per cent cure. On the contrary many patients complain of certain disturbing after effects, traceable to a resultant unnatural anatomical deficiency which interferes with the normal physiological function of the nose.

EYE SYMPTOMS AND CHANGES RESULTING FROM SINUS DISEASE AND TREATMENT OF SAME.

C. C. BUCHANAN, M. D.,

HATTIESBURG, MISS.

The subject assigned me for discussion on this occasion is indeed an important one It is of vital importance. First, because it deals with the most important and necessary of the special senses. Second, because I believe the causative factor when due to sinus disease is too often overlooked. Third, because when due to sinus disease and the cause is discovered early, many eyes may be saved which otherwise would be lost.

In order to understand better why eye changes and symptoms may result from sinus disease, it is necessary to review briefly the anatomy of the orbit and its contents. A portion of seven bones enter into the formation of the orbit. Three of these bones form a part of both orbits. A part of the roof of the orbit forms the floor of the frontal sinus. The floor of the orbit is the roof of the maxillary sinus. Its medial wall is the lateral wall of the ethmoid and sphenoid. The frontal and maxillary sinues and anterior ethmoid cells are in relation to the anterior two-thirds of the orbits. The posterior ethmoid cells and sphenoid sinuses are in relation to the posterior one-third.

The posterior third of the orbit has three major openings. First, the optic canal which is at the apex of the orbit and transmits the optic nerve and the ophthalmic artery with the sympathetic plexus upon it. Second, the superior orbital fissure which lies between the wings of the sphenoid bone and transmits all the nerves that enter the orbit except the optic and infraorbital. Third, the inferior orbital fissure which lies between the greater wing of the sphenoid and palatal bones. Passing through this fissure is the maxillary nerve,

infraorbital artery and inferior ophthalmic vein.

The orbital periosteum is loosely attached to the bone and for this reason is easily separated from it by effusions, exudates and extravasations which may arise in the neighboring structures. The fascia bulbi of Tenon's capsule is a smooth, thick resistant membrane which surrounds the globe or eyeball proper and acts as a barrier against the migration of infections from the orbit to the eye ball and likewise from the eye ball to the orbit.

Eye symptoms and changes resulting secondarily to sinus infection are caused by: First, a direct extension of the inflammation. Second, by pressure which is the result of inflammation. Third, by toxemia.

The infection may spread through a congenital dehesence; second, may result from rupture of the sinus wall; third, may be carried by the naso-orbital emissary veins.

Perhaps one of the most common and serious conditions occurring secondary to sinus infection is orbital periostitis. This may result from a migrating infection originating in any of the sinuses; however, I am sure the ethmoid cells are the most common source. The first sign is redness of the upper lid. This is soon followed by edema of the lid and chemosis of the conjunctiva. If the subperiosteal effusion is very great, the eye ball may be displaced in any direction or it may be immovable. There is tenderness on pressure of the orbital contents and the patient usually complains of deep-seated eye pain. If much pus is formed it may travel backward or forward. If it burrows forward it may localize above the upper lid at the upper outer angle or upper inner angle of the orbit. If it burrows backward the results are more serious and often times irreparable damage is done to the optic nerve.

The diagnosis of this condition is usually not a difficult or perplexing problem. In order to state definitely that it is secondary to sinus infection, we must first find the offending sinus.

The treatment of a condition like this must first be directed at the cause. If due to sinus, it must be drained. The local condition must also receive attention. Moist heat is not only indicated because it hastens resolution but it is also often gratifying to the patient. Sedatives are likewise necessary for the relief of pain which is often excruciating. When localization has taken place it must be incised and in this connection it must be remembered that the incision should extend through the periosteum, and usually it is necessary to insert a drain. If the edema and chemosis are such that the lids can not be closed, the cornea must be protected and this is best accomplished by the application of sterile petrolatum.

The second condition for consideration is orbital cellulitis. The anatomical location of this condition is external to the orbital periosteum and affects the connective tissue, fat and the structure between the periosteum and Tenon's capsule. It may be secondary to an orbital periosititis where rupture of the periosteum has occurred or may result from infection carried by the naso-orbital emissary veins, which have become thrombotic in their course. This condition is a very active infiltrative process. It is accompanied by considerable pain which varies in intensity, and simultaneously, constitutional symptoms may be marked. The eye lids become edematous early and the conjunctiva is chemotic. The globe may be displaced and this may be in any direction. The pupil is often dilated. Diplopia may be present. The optic nerve is inflamed and the ophthalmoscope may reveal an optic neuritis. If possible to investigate the visual fields, they will be found distorted, and vision is markedly diminished.

The diagnosis of orbital cellulitis is not difficult usually and is made from the following signs and symptoms: Lid edema, proptosis, limited or loss of ocular rotation, pain to backward pressure of the globe, usually unilateral, early impairment of vision and disturbances of visual fields. It must be distinguished from cavernous sinus thrombosis, pulsating exophthalmus, serous tenonitis, panophthalmitis, orbital emphysema and orbital tumor. These conditions usually are of a rather passive character and not actively inflammatory.

The treatment of this condition is similar to that of orbital periostitis. First, find the cause and if possible remove it. Second, such measures as will hasten localization, drainage and relief of pain.

The third condition I will discuss may result from either of the two just described or may have its cause focus of infection elsewhere. Tenonitis may be described as a serious inflammation characterized by transient recurring fluctuating edema of the bulbar conjunctiva. The eyes are affected alternately; however, they may be affected simultaneously. The eyes may be fixed and movement of the eyes painful. The lower half of the bulbar conjunctiva may protrude and conceal the lower lid. Where it does, the exposed membrane is dusky, smooth and tense. Vision is not effected in uncomplicated cases. The fundi are usually normal; however, where the inflammation extends far back and implicates the nerve sheaths, the retinal veins are engorged, the arteries are contracted and stringy and optic neuritis or even papilledema may be present. In this condition, an exudation occurs in Tenon's space. This fluid is albuminous and fibrinous in character and does not lead to suppuration. Corneal ulceration and iritis may complicate cases of prolonged duration.

The diagnosis is made from fixation of the eye ball, alternating proptosis, and extruding edema of the bulbar conjunctiva.

Treatment of this condition is local and symptomatic. First, the cause must be removed if possible and such measures adopted as will allay the inflammation and relieve pain.

The optic nerve and its affections are extremely interesting to those of us who practice and have a preference for opthalmology. A brief review of the anatomy of the optic nerve is necessary in order to understand why certain changes take place when the nerve is inflamed or its function interferred with from pressure.

The optic nerve fibers are gathered together into about eight hundred bundles, which are supported by neuroglial fibers. Connective tissue forms septa between these bundles and unites them into a trunk. In structure, the optic nerve resembles a column of the spinal cord, or a brain tract. It carries sensations of light, visual images, and impulses for pupillomotor activity. The optic nerve is covered by three membranes exactly like the covering of the brain. The dural or external covering is loosely attached. The pial is the internal and is firmly attached to the nerve fibers. Between these two is the arachnoid. This membrane divides the space between the dural and pial membranes into what is called the subdural and arachnoidal intervaginal spaces. Lymph spaces are found between the bundle of fibers in the nerve. The central artery of the retina pierces the sheath of the nerve on its inferior surface, crosses the intervaginal space, and penetrates the substance of the nerve to the axis. This it follows forward to the boros opticus or physiological cup. The central vein follows the course of the artery but leaves the nerve somewhat anterior it it. Both pierce the sheath of the nerve from eight to fifteen millimeters behind the globe. These vessels occupy perivascular sheaths within the nerve.

The optic nerve is divided into four parts. Two of these are of interest to us

in this paper. First, the optical portion or disk which can be seen with the ophthalmoscope, and second, the retrobulbar or orbital portion. The disk or visible portion is prominent in the fundus because of its definite margins, its lighter color, and the convergence of the retinal vessels upon it. The temporal quadrant of the disk is distinctly paler since it is less freely supplied with capillaries. This section is occupied by the papillomacular bundle or the fibers from the macular region. Diseases affecting the disk or optical part of the optic nerve can be diagnosed from observation with the ophthalmoscope; however, those affecting the retrobulbar part depend on changes in the visual fields and the acuteness of vision.

According to Roemer, Foster, Ramsey, Rutherford and others, orbital disease is the most common cause of optic neuritis, and they also claim that vision may be irreparably lost before the descending neuritis has become visible on the papilla. Skillern says that one of the most notable early signs of posterior sinus disease is an enlargement of the blind spot. He thinks this sign almost pathognomonic.

Optic nerve disturbances may become manifest: First, as a papillitis or intraocular optic neuritis, and, second, as retrobulbar or orbital optic neuritis.

Three types of intraocular neuritis are recognized: First, choked disk. This condition is suggestive of compression causing edema and engorgement without inflammation. The ophthalmoscopic picture is one of great swelling and protrusion of the disk, usually, the disk protrudes more than two diopters above the plane of the retina; marked tortuosity and distortion of the retinal veins; hemorrhages upon and near the edematous disk; arteries contracted.

Second, descending neuritis in which the symptoms indicate inflammation and are similar to yet considerably less marked than the condition just described; however, there are more changes in the retina surrounding the disk.

Third, neuroretinitis in which the signs are the same as the two conditions just described, and in addition there is evidence that the retina is extensively involved. This is evidenced by hemorrhages along the retinal vessels and spots of exudate and degeneration.

Treatment: First, proper treatment of the cause, medical and surgical. Second, treatment of the eye which consists in rest and shading from light.

Orbital neuritis may be acute or chronic. When acute it is called retrobulbar neuritis. The symptoms are first headache and failing vision. The globe may be protosed from swelling and inflammation of the orbital contents in which case attempts to press the globe back is attended with pain. The eye grounds are usually negative. The failing vision is usually rapid. Marked changes take place in the visual fields. The peripheral field is usually contracted. Some times only the macular and perimacular areas are affected with resulting central and peri-central scotomata. Perception for red and green is lost before that for blue and white.

The chronic form of orbital neuritis will not be discussed here for it does not result from sinus and orbital infections, but, on the other hand, is due to toxemia, usually chemical.

The treatment of this acute condition depends on the cause which must be removed promptly. Otherwise, permanent damage will certainly result. No local treatment to the eye is indicated with the exception of rest and protection.

CONCLUSIONS.

First: Eye complications of sinus disease are more common than we suspect.

Second: Usually unilateral and for this reason often overlooked until irreparable damage has been done.

Third: The eyes should not only be examined but closely watched in all sinus infections.

Fourth: All eyes showing diminished vision should be examined for fundus changes and disturbances in the visual fields and sinus disease suspected as the cause.

JOINT DISCUSSION OF PAPERS BY DRS. ADAMS, CHAMPENOIS AND BUCHANAN.

Dr. E. L. Wilkins (Clarksdale): There are many eye cases without any sinus disturbances. Nasal disorders cause other things. There are very few eye disorders from sinus conditions; in fact, I wonder if sinus infections cause eye disorders, and vice versa.

A doctor in my home town has developed some very bad cases. I wonder if the operation is what gives us the benefit, or does the operation act as a counter treatment? There is much to be desired in therapeutics, but nothing from surgical treatment. Early treatment is most effective. If we were little inclined to operate, the people would stay away less.

Dr. Robin Harris (Jackson): In my examination for sinus disease after anterior and posterior rhinoscopy I transilluminate, make one or more roentgenograms, and take the vision. This is a routine I always follow. If the vision is below normal, I try to find the reason why. However, my experience with eye disturbances in sinus disease is limited largely to external diseases and conditions. The first case that I remember was a lady eight and one half months pregnant, left side of nose full of pus and a marked swelling of the mucosa. The left eye was swollen closed. Forty-eight hours of temporizing caused no improvement. The patient was in marked pain and growing worse. I did an external frontal and ethmoid drainage under local anesthesia. This was my first experience with local anesthesia in external surgery. The antrum was opened intranasally. In twenty-four hours the swelling was practically gone from the eye and the patient began to improve and was delivered at term three weeks later by her family physician.

Another was a child four years of age. Following a severe acute cold the left eye was swollen tight. There was marked redness, pain and high fever. I saw this child late in the afternoon in St. Joseph's hospital. I did not hope for relief, but prescribed hot saline nasal irrigations (40 minims of adrenalin to two quarts of solution) every three hours. I scheduled a frontal and ethmoid drainage operation for eight o'clock the following morning. At 7:30 the following morning when I called to see the little fellow, the swelling was practically gone, the nose was fairly well opened and the drainage sufficient.

Dr. James H. Lipsey (Memphis): These papers have been a source of inspiration to me. I took some notes and thought I would say a few words, but I found that they had already covered what I had to say, and taught me a good deal beside.

Dr. E. H. Cary (Dallas): The first thing we have to do, is to get clearly in our minds that inflammation of the membranes of the sinuses due to nasal pressure and nasal blockages, without pus in the sinuses, gives the type of case in which we have eye inflammations. The great trouble with the rhinologist and ophthalmologist is that they are looking for pus in the sinuses, and when you have this condition, there are only a few eye conditions which are likely to be seen; among them, of course, is optic neuritis and optic nerve changes.

Many types of ulcers of the cornea with or without pannus, sometimes so complicated with folliculosis that the case presents every evidence of trachoma, are more or less associated with nasal conditions, and with changes in the sinuses which can be demonstrated with proper roentgen-ray methods.

Dr. Buffington's paper read at Louisville, on "Nutritional Disturbances in the Eye" was an excellent one, and I am quite sure that the nutritional balance can be corrected in many cases such as he describes with a real advantage. On the other hand, I feel pretty sure that we see many eye conditions that might be classified as a disturbed metabolism of the local part which yield very promptly to treatment of nasal conditions, which seem to relieve the metabolic disturbances of the local area, such as an eye which is inflamed.

I would say to you, that in nearly all of these cases, the nasal pathology is the result of the sinuses being primarily blocked, due to malformations and repeated inflammations.

The roentgen-ray is of great value when used in different ways to bring out the points that can be demonstrated. The use of neosilvol jelly or lipiodol is of very great aid.

Dr. W. L. Howard (Memphis): This is a most valuable subject and I feel that I would be neglecting my duty if I did not discuss these papers. I met Dr. Cary in New York City in 1901. He was there studying eye diseases. In listening to the symposium of papers and the discussions I have heard I think the most important part was omitted and that is diet. Vitamin diet is very

important in treating sinus conditions as vitamin D is nearly always lacking. I have made it a rule, in all cases, to give cod liver oil, especially in children where they have a sinusitis, whether it has any relation to eye disturbances or not. If you do not get results from diet and simple drainage you will then have reason to resort to something more radical. I realize that we have here with us today men who are ultra-conservative also some men ultra-radical. If you have a para-sinusitis condition, with pus and with eye complications, I do not think that any thing short of an operation will help. I hate to say this but I have seen incomplete operations by the late Dr. Lynch method which were very unsatisfactory. I also want to state that a complete Lynch operation (frontal) almost always will be a success. The trouble is that when you do not get results the operation is incomplete and as stated a complete operation will always give favorable results.

Dr. James B. Stanford (Memphis): When serious conditions arise in the eyes, secondary to sinus disease, it is too late for medical treatment. Those cases should be drained.

Dr. E. H. Jones (Vicksburg): I am very sorry that Dr. Cary did not mention the work done on retro-bulbar neuritis by Dr. Leon White. Any one interested in this subject would certainly do well to read his reports. It is my impression that he concluded that more cases of retro-bulbar neuritis were due to apical abscesses than to sinus disease. Almost any focus of infection can cause this condition. Not long ago I had a case which I thought due to an ethmoiditis. I did a radical ethmo-sphenoidotomy and a few weeks later she had a flare-up. On examination I found an acute purulent maxillary sinusitis and performed a simple antrumotomy. She cleared up rapidly but a few months later had another attack. Her teeth were all sound, but as her tonsils were infected I removed them. I felt confident that certainly she would be relieved after that operation. A few months later she had still another flare-up, and with it unmistakable signs of a duodenal ulcer. There is now no question in my mind that this case of neuritis was due to the duodenal ulcer. The sinuses and tonsils were diseased and operation probably benefitted the patient, but did not clear up the condition for which the operations were performed.

One of the doctors mentioned using 10 per cent cocain. Any one doing a good deal of nasal surgery would do well to look up the report of the A. M. A. Special Committee on Toxicity of Local Anesthetics, as well as a report of our own Dr. E. F. Howard. It is unwise to use cocain freely.

There are two other methods of treatment recommended that I would like to discuss. One is suction. I used to use suction frequently but have come to the conclusion that general suction is often harmful. I now use suction freely but always with an applicator tip, for the sole purpose of cleansing the nares of discharge. From my experience I would unhesitatingly condemn the frequent use of generalized suction in the nose as commonly performed.

The other subject is irrigation. When the nasal cavities are filled with infected discharge I think it permissible to irrigate them. When there is no such discharge I believe that irrigation, no matter what solutions are used, are harmful. We must remember that the nasal mucous membrane is a ciliated stratified columnar epithelium and irrigations will certainly irritate such a membrane.

Dr. C. D. Blassingame (Memphis): The association of sinus trouble with eye conditions comes to the simple fact that the association is by inference. The doctor associates the eye and nose troubles together. That is not a case of cause and result, and until everything else has been eliminated, you cannot infer that the conditions of eye trouble are caused by sinus.

The diagnosis of the nasal condition is again inference. We cannot look into the sinus and can only tell by the roentgen-ray. To diagnose conditions in the sinus, we must standardize our roentgenograms.

Dr. J. C. Adams (closing): I want to thank each of you for your kind remarks and wish to say that it was very gratifying to me. With reference to the use of cocaine used in treatment of nasal conditions, I think one should always use a very weak solution, because it does not give the reaction that one gets with a stronger solution. As to the use of suction in treating nasal inflammations, I think it is of great benefit if used properly but contraindicated in chronic conditions of the mucous membranes of the nose with polypoid degenerations.

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THE CLASSIFICATION OF GOITER.

The American Association for the Study of Goiter has prepared a simple classification of the different types of goiter which they are anxious to have prevail in medical nomenclature. The Association, composed as it is of outstanding students of thyroid disease, has the authority of accomplishment, and it would seem to the unprejudiced that the classification that it has advocated should receive general recognition throughout the country. If this classification is followed, there would be less misunderstanding concerning the intent and meaning of authors and writers of goiter subjects than there has been in the past.

The clinical classification is as follows: Type 1—non-toxic diffuse goiter; Type 2—toxic diffuse goiter; Type 3—non-toxic nodular goiter; Type 4—toxic nodular goiter.

Type 1 includes congenital goiter, the goiter of childhood, adolescence, and pregnancy, and represents the large majority of inactive (?) colloid goiters of the early decades of life.

Type 2, the toxic diffuse goiter, is the toxic hyperplastic goiter of former days. The new term is preferred to the one usually employed, exophthalmic goiter or one or another of the eponyms such as Parry's, Grave's or Basedow's disease. The atypical varieties, which probably represent variations of the toxic hyperplastic goiter, are included under this particular type.

Type 3 represents the nodular goiter without any symptoms relative to thyroid disfunction other than hypofunction. These goiters in the past have frequently been spoken of as non-toxic adenomatous goiter, fetal or adult.

Type 4 is designated as the toxic nodular goiter. The Association writes that under this classification are included first the nodular goiter with toxic symptoms, sometimes called toxic adenomatous goiter, the result of perversion of the secretion and the denerative changes of component tissue. The second is the nodular goiter with toxic symptoms in which there is as well an associated histo-pathology of toxic hyperplastic goiter. This sub-type has been referred to as secondary Graves disease or adenomatous goiter with hyperthyroidism. The third sub-group of type 4 includes nodular goiter with toxic symptoms due to a combination of the first two sub-classifications in this type 4 group. In the past this has often been referred to as the mixed type of goiter.

Malignant changes may take place in any one of these four main types. In such a case they should be classified as malignant goiter of that type in which the malignancy has occurred. Cretinism and similar conditions are sequelae and not types of varieties of goiter. It is important not to confuse varieties and sequelae with types. Hemorrhagic, cystic, adolescent, intra-thoracic, substernal or congenital are proper terms to describe varieties and clinical manifestations, but only the standard characteristics should be used to designate types.

Of course, it is appreciated that all goiter students are not one in their acceptance of this or any other classification of goiter. This particular classification does not seem to be a very great improvement over that of Marine. It is rather unfortunate that the term "toxic" is employed to designate different types of goiter. Strictly speaking, toxic means produced by poison or pertaining to a toxin, so that the word is not accurately applicable to the description of a condition in which there is a perversion of secretion of a gland which can not truly be said to be a poison. This comment may be too critical, but nevertheless, if a standardized classification of nomenclature is to be employed throughout the country, it should be exact and accurate.

The American Association for the Study of Goiter is to be congratulated upon their efforts to clarify the undoubtedly hazy atmosphere of goiter classification. Even if exception may be taken to the classification, unless there is some one or some body willing to act as proponents of another classification, it would seem wise to accept the present one which has been prepared by a group of men whose interests are primarily in the study of goiter.

THE SOUTHERN MEDICAL.

The plans for the Southern Medical Association Meeting in New Orleans are progressing rapidly. The Local Committee of the Orleans Parish Medical Society has virtually completed all their arrangements for the reception and entertainment of the guests throughout the South. The scientific programs are completed and will be received by the members of the Southern Medical Association in the relatively near future.

The man who is not a member of the Southern Medical Association should consider deeply the advantages of belonging to this particular organization. Especially does this apply at this time to the doctors in Louisiana and Mississippi. A splendid meeting will be held in New Orleans, at a time of the year when the climate is most salubrious and when a scientific relaxation would be of particular benefit to the busy doctor who has been active throughout the hard summer. To the doctors in these two States, the nearness of New Orleans to their home towns will reduce travel and traveling expenses to a minimum, and necessarily will cut down on the length of time that they will be away from their practice. It is respectfully suggested that those members of the Mississippi State Medical Association and Louisiana State Medical Society, who have not in the past attended some of these meetings, give the present New Orleans Meeting a try, see if they do not like this particular meeting, and find out if they do not think that it will be well worth their while to become ultimately members of the organization.

A REQUEST.

At a recent meeting of the Journal Committee, Dr. Barrow, President of the Louisiana State Medical Society, suggested that it would be of interest to the readers of the Journal to have published from time to time articles dealing with the economic problems that confront the physician, and to have likewise papers that dealt with

some interesting phase of forensic medicine or even an occasional contribution on medical ethics. The idea is a most excellent one, which appealed strongly to the members of the Journal Committee. There is no question but that such articles are of lively interest to the medical profession, and often may be read when a purely scientific treatise or paper may be hastily scanned or neglected entirely. The function of a medical journal largely is to present scientific data and facts which will keep the reader abreast of scientific medicine of the moment. A State Journal, however, has somewhat different functions from that of being purely a scientific medium for the expression of the thoughts of the contributors. A State Journal should contain news of the activities and doings of its members; it should tell of the activities that are going on in various hospitals and medical centers of the State; and it shou'd inform the members of the States which it represents of the usual and unusual in medicine which is observed at these hospitals. Dr. Barrow's suggestion of an additional type of information to be conveyed to the Journal subscribers is an excellent and splendid conception, but, and this is a very large but, the difficulty lies in securing papers of this character. It was suggested that members of the Mississippi or Louisiana State Medical Society be requested to submit such papers by personal solicitation of the Editor. This has been done, and the response has been entirely negative. It is hoped that there may be a considerable number of men in the two States whom the Editor does not come in contact with personally, who may have contributions of this type or who may have ideas and thoughts concerning medical economics, forensic medicine, or medical ethics, which they would be willing to put down on the typewritten sheet and send to the Editor.

This is a request for such material. On account of the necessity of printing at spaced intervals papers that have appeared at the State Medical Societies, it often happens that publication is considerably delayed of the scientific articles presented at these meetings, but if any individual member of the States of Louisiana and Mississippi will send in papers of the above type, a relatively prompt publication of these articles can be promised.

HOSPITAL STAFF TRANSACTIONS

VICKSBURG HOSPITAL.

Staff Meeting, August 13, 1931.

Abstract.—Case Report of Acute Tetany.—Dr. W. G. Weston.

This case is reported, because of the infrequency of the occurrence of this condition in adults. Berkely in Blumer's Therapeutics states that hardly more than 100 cases have been reported in adults. In Europe, however, it is stated to be more frequent and occurs at all ages.

Various causes have been given as to the factor concerned in the production of tetany: (a) The epidemic type seen in Europe which is accompanied by slight fever and thought to be infectious. (b) Tetany secondary to gastric and intestional disorders. (c) Tetany following chloroform, ergot, lead, alcohol, also following onset of uremia. (d) Tetany following acute infections. (e) Tetany accompanying pregnancy which may recur with subsequent pregnancies. (f) Tetany after thyroidectomy. (g) Tetany accompanying Basedow's disease, cerebral tumor, cyst of cerebellum, syringomyelia.

Patient: Female, white, aged 28 years. Patient was first seen on July 9, at which time she complained of a tight feeling in chest and throat with difficulty in breathing and cramping of hands and arms. The onset of present condition was rather abrupt. While patient was in bathing, she noticed difficulty in breathing and a sensation of choking in chest. At this time there was also numbness and tingling of hands and arms with cramping. It was necessary for her to be helped from the bathing pool. Following this she came to the clinic and was seen by Dr. W. H. Parsons and myself.

Personal History: Married; three children living and well. History of past illnesses not remarkable and history by systems not remarkable.

Physical Examination: Examination of head, eyes, ears, nose and mouth not remarkable except for two devitalized teeth. Neck: thyroid slightly enlarged; otherwise negative. Chest: not remarkable. There was no evidence of respiratory difficulty in spite of patient's complaint of difficulty in breathing. Heart and lungs negative on physical examination. Blood pressure: 118/72. Abdomen negative except for tenderness over kidney region. Vaginal: relaxed perineum. Uterus: third degree retroversion, moderately enlarged; cervix lacerated and inflamed: Extremities: moderate degree of rigidity of arms and definite spasm of both hands with flexion of phalangeal joints, the thumb being flexed in palm. Fingers could not be extended and upon forcible extension, returned to former position. Right hand was more involved. Nervous system: reflexes active, but not exaggerated. Chvosteks' sign not elicited. Trousseau's sign (tourniquet) not attempted as spasm was already present.

Laboratory: Kahn negative. Urine negative. Blood: white blood count 9,500, polynuclears 55 per cent, hemoglobin 72 per cent. Blood calcium 8 mg. per 100 cc.

TREATMENT.

Patient given 10 cc. of 5 per cent calcium chloride intravenously and spasm relaxed in about 15 minutes, but muscles remained sore. Put on calcium lactate, 20 grains every four hours, and parathyroid substances, .1 grain twice daily. Condition improved and patient was discharged on July 12, 1931. Calcium lactate, 10 grains every four hours and parathyroid .05 grain twice daily prescribed.

July 13, 1931—Patient seen again with signs and symptoms as above. Relieved by calcium chloride intravenously.

July 15, 1931—Seen again because of same condition. Relieved by calcium chloride intravenously.

July 17, 1931—Another attack. Given calcium chloride and brought into the hospital.

July 19, 1931—Called to hospital. Patient again having tetany. Given calcium chloride intravenously. Patient relieved.

July 22, 1931—Patient operated on for perineal laceration and endocervicitis. No recurrence of symptoms.

August 5, 1931—Patient discharged.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL.

Staff Meeting, September 10, 1931.

Abstract.—Carcinoma of the Ovaries.—Dr. G. M. Street.

Patient: White, female, aged 65, dietitian; admitted to hospital August 6, 1931 and discharged September 2, 1931.

Chief Complaint: Slight bloody flow from vagina at irregular intervals for past three months; no pain; no discomfort and feels as well as she ever did; comes to hospital because she knows there should be no uterine bleeding. Menopause about twenty years ago and has had no vaginal discharge of any kind since then up to the past three months. Never was pregnant.

Past History: Was almost an invalid from age of 30 to about age 45 when menopause occurred; suffered with chronic "ovarian and menstrual trouble" as she calls it. Had numerous attacks of soreness and pain in lower abdomen that would keep her in bed many months at a time. Was advised many times then to have an operation which was always refused by her and her husband. Never had any serious illness other than attacks mentioned above. No history of tuberculosis or cancer in family.

Physical Examination: Well developed; well nourished; somewhat obese; no appearance of senility. One would not think she was over 55 or 60, although she is 65 years of age. General physical examination reveals nothing remarkable other than in the lower abdomen and pelvis. The cervix is atrophic, not ulcerated, and there is very slight bright red discharge from the uterus. Bimanual palpation reveals a mass in the region of the left ovary, about the size of an orange, not freely movable, not tender; feels like a solid tumor. The uterus appears to be very small and forward. The right adnexa cannot be mapped out accurately. There are no large masses on right side of uterus.

Blood: erythrocytes 4,100,000; hemoglobin 80 per cent; leukocytes 10,700; small lymphocytes 34 per cent, large mononuclears 3 per cent, polymorph. neuthrophiles 60 per cent, polymorph. eosinophiles 3 per cent, no malaria found. Coagulation and bleeding time normal. Wassermann, Kline and Young and Kahn tests negative. Urine negative.

Procedure: In view of the fact that the patient was physically in excellent condition except for the pelvic findings and especially on account of the probability of malignancy in the ovarian tumor, operation was advised.

Operation on August 7, 1931: Low mid-line incision. Pelvic organs are all densely adherent from old adhesions. Left ovary is about the size of large orange and appears solid, somewhat irregular and nodular, it is bound down with dense adhesions but shells out without great difficulty. The right ovary is only slightly larger than normal, but is densely adherent to lateral pelvic wall and posterior surface of broad ligament. Both tubes are sealed at fimbriated extremity, distended with fluid, and are about the size of a finger; they

present the typical appearance of a bilateral hydrosalpinx. One tube ruptured while being mobilized and contains clear fluid. The uterus is very small and atrophic. The appendix is large, adherent and definitely diseased. There is no evidence of glandular involvement or metastases any where in abdomen. Both ovaries and tubes and appendix removed. Wound closed without drainage.

Patient had an uneventful convalescence from the operative procedure. Wound healed by primary union. Pathological examination of tissues showed, adeno-carcinoma of ovary, bilateral; salpingitis, chronic, bilateral; salpingitis, acute, right; appendicitis, acute and chronic.

On the 15th post-operative day 2400 mg. hours of radium were given in the fundus of the uterus. At the same time deep therapy roentgen-ray through the pelvis was started and will be continued at intervals until a full depth dose of radiation is administered.

Discussion by Dr. L. S. Lippincott: Primary carcinoma of the ovary is said by certain authors to constitute about ten per cent of ovarian tumors. Our percentage of primary carcinoma is lower than this. Two groups are recognized, the solid and cystic forms. In this case the cancer is of the solid form. In our experience the cystic form, especially the papilliferous type is the more common.

The solid primary carcinoma of the ovary is usually unilateral but bilateral involvement is by no means rare. In this case the tumor of the ovary was encapsulated and the surface smooth and glossy. The tumor of the right ovary was very small, only found on microscopic examination. The consistence of these tumors varies with the amount of connective tissue. In this case the connective and glandular elements were in about equal amounts.

In these solid tumors, it is not uncommon to find small calcareous balls so called psammoma bodies. At times these may be numerous. These calcareous deposits were present in the tumor of the right ovary in this case.

Metastasis is usually to the lymph nodes of the region and through the lymphatic spaces into the uterus and into the opposite ovary.

An interesting finding in this case was the presence of ripening follicles in the right ovary. This activity may have accounted for the recurrence of uterine flow.

Abstract.—Thyrotoxicosis.—Dr. L. J. Clark.

Patient: Male, aged 59, white, married, admitted to hospital June 23, 1931.

Chief Complaint: Nausea; inability to keep food down; loss of weight, 35 pounds in three months; nervousness; frequent headaches and blocked nasal passages for two months; pains in right shoulder and arm. First noticed three months ago that he had a severe pain in back followed by rather severe head cold with blockage of nose and had a rather severe knocking in head with fever and headache. Swallowing then became difficult and since then he has been able to swallow only certain things, which he thinks is the cause of his loss of weight. Has had no other pains of consequence. Is constipated; does not vomit; no passage of blood. About six weeks ago had a very severe attack of diarrhea lasting three weeks. Has noticed recently that he is losing his voice and can hardly talk above a whisper at present; has a constant desire to clear his throat. Pain in right shoulder and arm is severe in exercising; there is some swelling of hands. No fever for past thirty days. Marked insomnia; is often awakened with desire to clear throat. For past two or three days has had an intense itching of body but no evidence of rash.

Past History: Childhood diseases; pneumonia five years ago; influenza in 1918. No accidents; no operations; frequent attacks of malaria.

Family History: Father died of apoplexy at age 65; mother died at age 49, cause unknown; one brother, 64 years of age, living and well; one sister, age 62, living and well. No history of tuberculosis, cancer, or insanity. Seven children living and well.

Physical Examination: Temperature 98.6°F; pulse 90, regular; blood pressure 165/85; respiration 28, rather accentuated inspiration. Fairly well developed; poorly nourished; apparently acutely ill. Eyes show rather glassy stare but no exophthalmos. There is a definite palpable mass on the left side of neck in region of thyroid, about the size of a small walnut. Tonsils small and chronically diseased. Heart accelerated; slight systolic murmur at apex not radiated. Some tenderness in splenic region.

Urine: Large trace of acetone; some fresh red blood cells; numerous bacilli. Prostatic expression: No pus or organisms found. Blood urea nitrogen, 25 mg. per 100 cc.; blood sugar, 87 mg. per 100 cc. Blood: Hemoglobin 62 per cent; erythrocytes 3,888,000; leukocytes 5,200; small mononuclears 22 per cent, large lymphocytes 10 per cent, large mononuclears 6 per cent, polymorph. neutrophiles 60 per cent; eosinophiles 2 per cent; no malaria. Blood Wassermann, Kline and Young and Kahn tests negative. Sputum: No B. tuberculosis. Feces: No blood or parasites.

Examination by oto-laryngologist showed some edema of vocal cords. Roentgenologic study of sinuses and thorax negative. Fluoroscopic examination of stomach showed some evidence of irregu-

lar filling at pyloric region, suggesting carcinoma. Repeated examination did not bear this out. Gallbladder filled well.

Fractional gastric analysis showed no lactic acid; no blood; total acidity 38; free HC1. 20, combined 4.

Procedure: Patient was treated with glucose infusions daily and bromide and allowed to have a regular full diet. He responded well and gained weight. Sent home in ten days free of all symptoms. Advised to return later for further study. The clinical picture was that of a grave, rapidly wasting disease, possibly carcinoma of some vital digestive structure. Diabetes, verging on diabetic coma was at first suspected but was disproved.

Three weeks later: Readmitted, stating that he had improved nicely for about ten days at home and had then suddenly developed same symptoms first presented. Tremor was evident and the small palpable mass in the thyroid more prominent. Basal metabolism determination showed a rate of +70 per cent (DuBois) and +94 per cent (Harris-Benedict). Patient was given large doses of Lugol's solution with bromide and allowed to go home for further treatment.

Five weeks later: Patient again returned (September 9) stating that he had improved nicely, gaining approximately 15 pounds in weight, up until about ten days ago, when he refused to eat and began losing weight again. At this time he would "crave" sweets only. Has noticed that for the past five or six days the itching of the skin was more intense and that his skin was jaundiced.

Recent tests show a strong direct Van den Berg reaction; large trace of bile in the urine; basal metabolic rate +27 per cent (DuBois) and +34 per cent (Harris-Benedict). Glucose tolerance test shows a slight delay in return to fasting blood sugar level. Hemoglobin is 70 per cent and erythrocytes 3,568,000.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR.

October 1.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 1.—Physiology Seminar, Tulane Medical School, 5 P. M.

October 5.—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.

October 9.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 9.—Physiology Seminary, Tulane Medical School, 5 P. M.

October 9.—French Hospital Staff, 8 P. M.

October 12.—ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.

October 14.—Touro Infirmary Staff, 8 P. M.

October 15.—Eye, Ear, Nose and Throat Club, 8 P. M.

October 16.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 16.—Physiology Seminar, Tulane Medical School, 5 P. M.

October 16.—Mercy Hospital Staff, 8 P. M.

October 19.—Hotel Dieu Staff, 8 P. M.

October 20.—I. C. R. R. Hospital Staff, 12 Noon.

October 20.—Baptist Hospital Staff, 8 P. M.

October 20.—Charity Hospital Medical Section, 8 P. M.

October 21.—Charity Hospital Surgical Section, 8 P. M.

October 22.—New Orleans Hospital Conference, I. C. R. R. Hospital, 8 P. M.

October 23.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 23.—Physiology Seminary, Tulane Medical School, 5 P. M.

October 26.—CHAILLE MEMORIAL ORATION, ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.; Dr. Walter Sistrunk of Dallas, Texas, will be the Orator.

October 30.—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

October 30.—Physiology Seminar, Tulane Medical School, 5 P. M.

MEMBERS SUBSCRIBING TO THE SOUTHERN MEDICAL ENTERTAINMENT FUND

Dr. John A. Lanford, Treasurer of the Southern Medical Entertainment Fund, has reported the following doctors who have contributed to the entertainment of the Southern Medical visitors in November:

David Adiger, Carroll W. Allen, E. E. Allgeyer, H. B. Alsobrook, T. B. Ayo, Chas. A. Bahn, J. E. Bailey, J. M. Bamber, C. C. Bass, Elizabeth Bass, O. W. Bethea, Bradburn & Bradburn, W. R. Brewster, F. Temple Brown, D. C. Browne, W. R. Buffington, W. W. Calhoun, L. L. Cazenavette, L. L. Chalaron, S. A. Chapman, Frank Chetta, J. W. Cirino, Geo. F. Cocker, Isidore Cohn, J. C. Cole, Rena Crawford, J. C. Derbofen, Lily L. Dismuke, Homer Dupuy, J. B. Elliott, Jr., Allan Eustis, Geo. D. Feldner, Frank Gallo, H. B. Gessner, Florence Ruth Gilpin, Amedee Granger, Geo. L. Hardin, Roy B. Harrison, E. S. Hatch, Katherine Havard, Sam Hobson, C. S. Holbrook, J. Raymond Hume, Jos. Hume, S. R. Humphies, Emmett L. Irwin, Landfried & Irwin, F. M. Johns,

A. C. King, W. A. Knolle, John A. Lanford, J. Browne Larose, John P. Leake, F. E. LeJeune, A. L. Levin, Louis Levy, M. J. Lyons, Shirley C. Lyons, Basil C. MacLean, Urban Maes, Manni Mallowitz, C. W. Mattingly, L. J. Menville, L. A. Meraux, C. Jeff Miller, M. W. Miller, P. F. Murphy, J. H. Musser, Edward McCormac, Spencer B. McNair, Adolph Noha, J. A. O'Hara, J. P. O'Kelley, T. H. Oliphant, R. A. Oriol, H. J. Otto, F. A. Overbay, Jos. P. Palermo, Wm. H. Perkins, J. M. Perret, W. D. Phillips, L. L. Rabouin, J. B. Rateau, W. A. Reed, I. L. Robbins, W. H. Robin, J. C. Rodick, W. H. Roeling, J. N. Roussel, J. J. Ryan, P. B. Salatich, L. C. Scott, Sellers & Sanders, Sidney K. Simon, W. C. Smith, Edmond Souchon, Marion Souchon, Ambrose H. Storck, G. J. Taquino, N. F. Thiberge, H. R. Unsworth, M. T. Van Studdiford, E. H. Walet, H. W. E. Walther, J. D. Weis, G. Richarda Williamson, S. H. Wills, M. F. Wilson, W. R. Wirth, and J. J. Wymer.

There is still a considerable amount of money to be raised for the very modest budget which has been made up for the entertainment of these visitors.

All members of the Orleans Parish Medical Society who have not as yet subscribed are earnestly urged to send in their subscription as soon as possible. The list of the doners to this fund will be published in full in the November number of the Journal.

A joint meeting of the Orleans Parish Medical Society Child Welfare Committee and the Child Welfare Association was held recently and the relationship between the organized medical profession and this charitable organization was fully discussed.

The Committee of Arrangements met and the details of the organization's entertainment of the Southern Medical Association visitors were discussed.

On Friday, November 20, during the meeting of the Southern Medical Association, clinics will be held at the auditorium by the members of the profession from New Orleans.

The following program has been arranged by the Committee on Convention Clinics.

The following gentlemen will be on the program:

Ear, Nose and Throat.

Dr. Homer Dupuy—Malignancy of the Upper Maxilla.

Dr. H. L. Kearney—Treatment of Lung Abscess by Bronchoscopic Drainage.

Eye.

Dr. Henry N. Blum—What the Layman can do for the Prevention of Blindness.

Genito-Urinary.

Dr. Joseph Hume—Significance of Hematuria.

Dr. W. A. Reed—Infections of the Prostate Gland.

Pediatrics.

Dr. W. W. Butterworth—Appendicitis in Children.

Dr. C. J. Bloom—Rickets—A New Treatment.

Surgery.

Dr. E. D. Fenner—The Vital Importance of Early Diagnosis and Prompt Treatment in Acute Osteomyelitis.

Dr. E. D. Martin—

Dr. Alton Ochsner—The Diagnosis and Treatment of Bronchiectasis.

Dr. Emmett Irwin—Some Observations on the Cure of Aneurysm.

Dr. J. T. Nix—Intestinal Anastamosis.

Neurology.

Dr. Harry H. Daspit—Thrombosis of Spinal Arteries.

Dr. Gilbert Anderson—Headache in Brain Tumor.

Gynecology.

Dr. C. Jeff Miller—Gynecology Problems of the Colored Woman.

Dr. H. W. Kostmayer—Office Gynecology.

Gastro-Enterology.

Dr. S. K. Simon—The Hypersensitive Colon and Its Treatment.

Medicine.

Dr. J. Birney Guthrie—Achylia Gastrica.

Dr. I. I. Lemann—The Diagnosis and Treatment of Diabetic Coma.

Dr. J. H. Musser—Some Blood Dyscrasias.

Dr. Chas. Eshleman—

Dr. B. G. Efron—Management of the Asthmatic.

Public Health.

Dr. Basil C. McLean—Hospital Policies and Pocketbooks.

Dr. W. R. Brewster—Relationship of the Physician and Company in Industrial Surgery.

It is with regret that we report the deaths of two of our members during the past months. Dr. Aristides Agramonte, an Honorary Member, and Dr. J. J. Sarrazin, an associate member.

The following applications for membership in the Orleans Parish Medical Society are posted:

Active Membership — Drs. Hebert Cannon, Harry B. Levey, Henry G. Butker, Jacob O. Hoth, Morris Shushan and J. Thornwell Witherspoon.

Interne Membership—Pascal L. Danna, Harrie A. Patterson and Thomas R. Ramsay.

H. Theodore Simon, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

After going to press we have received official notice that the American Medical Association will meet in New Orleans, May 13, 1932. The lateness of receipt of this notice in relation to the time of going to press prohibits more than this brief announcement at the present time.

THE MATAS BIRTHDAY VOLUME.

Within the next few days the Matas Birthday Volume, a collection of surgical essays written in honor of Rudolph Matas will appear from the press of Paul B. Hoeber, Inc., New York. The material contained within this volume represents a splendid group of articles on vascular surgery, and another particular valuable collection of cancer statistics and articles on the surgical management of cancer of the stomach, large bowel, and the breast. The authors, nineteen in number, are not only from this country, but Spain, Scotland, Italy, and France are also represented. American authors include such men as M. R. Reid, Evarts A. Graham, Howard Lilienthal, George W. Crile, John B. Deaver, H. A. Royster, J. C. Bloodgood, and others. From the preliminary announcement by the publishers of this volume, every man interested in surgery should have one for future reference. The very many friends and hosts of admirers of Dr. Matas, even if they are not primarily interested in surgery, should have on their library shelves one of these volumes which has been published in honor of our great New Orleans surgeon.

A NOTICE.

To the Members and Eligible Members of Sixth District Parish Medical Society:

Our Fall Meeting takes place at Jackson, Louisiana in the East Louisiana State Hospital, on October 14, 1931, beginning on Wednesday at 10 a. m. sharp. At the last meeting of this society held in Baton Rouge, it was attend by only forty-eight physicians and there are over one hundred and fifty eligible members. The President of our State Medical Society, Dr. S. C. Barrow, has been using every energy and effort to get us organized up to the one hundred per cent notch in Louisiana. He urges and stresses the necessity of keeping the District Societies alive and active with a full quota of eligible membership. He stresses the importance and necessity of District organizations. He will be present at the meeting with us and we promise you a splendid program. If you know Dr. Smith and his staff, you know a royal welcome awaits us. Let us take the "bit" in the mouth and get organized to the one hundred per cent so that we can feel a pride in the Sixth. Those of you, who have not paid your dues in Baton Rouge in April last are delinquent and we ask that you send check immediately to Dr. H. D. Bullock, Secretary, Covington, Louisiana, or to me.

Please don't forget the time and date and let us go in full force—let every eligible member be with us.

Yours sincerely,
F. F. Young, President,
Sixth District Medical Society.

AVOYELLES DOCTORS HOLD A GOOD MEETING AT MANSURA.

The Avoyelles Parish Medical Society held its regular quarterly meeting at the residence of Dr. Kirby A. Roy, Mansura, Wednesday evening, September 9. The following members answered the roll: Dr. R. G. Ducote, President, Drs. Regard, Roy Jones, Couvillon, W. F., Couvillon, S. J., Quirk, Wilson. Guests consisted of Dr. Geo. L. Drouin, Dr. Ben Chamberlain and Dr. Lester J. Williams both of Baton Rouge.

A paper entitled "Hypertension and Its Causes" was read by Dr. H. C. Jones of Bunkie. The discussion was opened by Dr. Emil Regard of Mansura. The subject incited interest and was well discussed.

Dr. Lester J. Williams former President of the State Body and the Louisiana Counselor for the American Radiological Society presented to the Avoyelles doctors a very interesting paper on "Radium in Cancer of the Cervix," a topic of real and vital interest to the general practitioner. The discussion of Dr. Williams' paper was opened by Dr. S. J. Couvillon of Moreauville. Thanks were tendered to Dr. Williams for so splendid a paper, one which dealt with a condition so prevalent and so often overlooked by the average practitioner. The paper was well received and was well discussed.

After a sumptuous supper served by Mrs. Roy, the Society went into miscellaneous matters and adjourned to meet at Marksville Wednesday evening, December 9, 1931, at which meeting the "Spinal Anesthesia" technic will be demonstrated by motion pictures to be supplied to the Avoyelles physicians in films by the Metz Laboratories of New York. At the December meeting it's customary to elect officers for the ensuring year and the collection of annual dues, which will form the business phase of this meeting.

S. J. Couvillon, M. D.,
Secretary Avoyelles Parish Medical Society.

MOUTH INSPECTION WEEK.

The week commencing with the first Monday in October is to be designated as Dental Health Inspection Week. All the school children of preschool age throughout the State will be subjected to a dental inspection during this time in order that both educational and corrective work can be begun at once. These inspections are to be made under the supervision of the Parish Health Unit, or if none exists in the Parish, under the supervision of the Parish Dental Health Committee, and may be made by any one they decide upon, viz., members of the Health Unit, Dentists, Dental Hygienists, or teachers trained and qualified to do the work. If a single dental defect or an unclean mouth is found, the child is instructed to see the family dentist for an examination and is provided with a dental inspection card, which is filled out by the inspector and is to be presented to the dentist when reporting to him for the examination and correction.

The Five-Year Dental Health Educational Program for Louisiana is the result of a State-wide survey by the Bureau of Dental Health Education and has as its object the education and instruction of children, parents and teachers in matters of oral hygiene and nutrition and the correction of existing dental defects. The program is primarily educational, but with the present day knowledge of the serious consequences from neglected diseased dental conditions, the campaign would fall far short of its purpose if provision were not made for the correction of actually existing mouth disorders even in those children whose parents or guardians are unable to pay for dental services.

This campaign will be directed by the Bureau of Parish Health Administration of the State Board of Health with the Bureau of Dental Health Education of the Louisiana State Dental Society acting in an advisory capacity. The work will be carried on throughout the State by the Parish Health Units, State Educational forces and our own working agencies. This Bureau will arrange for Radio talks on Dental Health Education.

A Dental Health Week, under the auspices of the Bureau of Parish Health Administration of the State Board of Health and with cooperative efforts of the State Educational forces, the Bureau of Dental Health Education and members of the Louisiana State Dental Society, will be observed in every community in Louisiana during the first week in October.

It is earnestly requested that parents take their children to the designated dentist of their locality at the appointed time.

J. A. O'Hara, M. D., President,
Louisiana State Board of Health.

THE SHREVEPORT FALL CLINICS.

The preliminary program of the 1931 fall clinics of the Charity Hospital of Shreveport has just come to hand. These clinics will be held October 21-23, and a most excellent program has been provided. Surgery, internal medicine, obstetrics, urology, x-ray, and eye, ear, nose and throat disorders will all have representatives at the various clinics.

DALLAS SOUTHERN CLINICAL SOCIETY NEWS.

Throughout the summer, the Executive Committee of the Dallas Southern Clinical Society has held weekly meetings perfecting plans for the society's Fourth Annual Spring Conference to be held in Dallas March 28 to April 1, 1932, inclusive. Preparations are already far in advance of those for last year. This society, whose sole purpose is to make available to the doctors of the South the post-graduate teaching material of Dallas, has held three notably successful annual meetings which have occasioned much favorable comment. The attendance last year was just short of 1,200, and plans are being made to entertain at least 2,000 in 1932.

HEALTH OF NEW ORLEANS.

For the week ending August 15, there were 133 deaths in the City of New Orleans, 79 in the white population and 54 in the colored. This gives a death rate of 14.8, considerably below the average death rate of the first 33 weeks of the year. The week ending August 22 shows a death rate slightly higher, being 15.1, the result of 135 deaths, 83 of which were in white individuals and 52 colored. This rate corresponds almost exactly to the same week in 1930. The following week, the Division of Vital Statistics of the Bureau of the Census reports a death rate of 15.4, as a result of the dying of 83 white and 55 colored citizens of the City. In the corresponding week of 1930 the death rate was 14.2. The infant mortality rate during this week was 82, because of the death of 15 infants under one year of age. For the week ending September 5, the death rate had increased to 17.0, as a result of 152 deaths, 87 white and 65 colored. The infant mortality rate had dropped to 66, as only 12 infants under one year of age died during this week.

MORBIDITY WEEKLY REPORT OF THE STATE OF LOUISIANA.

Dr. J. A. O'Hara, Epidemiologist of the State of Louisiana, in collaboration with the U. S. Public Health Service, has issued weekly morbidity reports which are here briefly abstracted. For the week ending August 22, 1931, the reportable diseases that occurred in double figures were as

follows: Syphilis, 95 cases; typhoid fever, 69; gonorrhea, 33; pulmonary tuberculosis, 29; diphtheria, 21; malaria, 17; scarlet fever, 12; and pneumonia, 11. The typhoid fever cases were reported from 22 parishes, with Orleans Parish having 16 cases, 11 of which were imported. For the week ending August 29, 55 cases of typhoid fever were reported, Orleans Parish having 18, 13 of these cases being brought to the City from out of town communities. During this week there were also reported 24 cases of diphtheria, 26 of malaria, 22 of pneumonia, and pulmonary tuberculosis 33. For the week ending September 5, typhoid fever cases had dropped to 39, malaria had jumped up to 49 reportable cases, pneumonia 63, tuberculosis 58, and diphtheria 31. There were reported 64 cases of syphilis and 25 cases of gonorrhea. It is rather of interest that, despite the severe epidemic of poliomyelitis which is now prevalent in the northern and eastern sections of the United States, only 2 cases in the last month have been reported in Louisiana. For the week ending September 12, typhoid fever had increased to 60 cases, more than double the five year average. Forty-three cases of pneumonia were reported, 36 of pulmonary tuberculosis, only 12 cases of malaria, and 16 cases of syphilis. Three cases of small-pox were also reported this week, one case of meningitis, and one case of undulant fever.

Dr. John Menville, son of Dr. L. J. Menville, left recently for Baltimore to accept a Fellowship in the Surgical Pathological Laboratory, John Hopkins Hospital.

Dr. Leon J. Menville attended a Bone Tumor Clinic held recently at Johns Hopkins University, as the guest of Dr. J. C. Bloodgood.

Dr. Oscar Bethea addressed the Lafourche Medical Society recently on the subject of "Recent Advances in Diagnosis." Dr. Bethea and Dr. John T. Sanders spoke before the Florida Parishes Medical Society September 10, at the Southern Hotel, Covington. On October 7 Dr. Bethea will address the Eighth Congressional District Medical Society, the subject of his talk being "Angina Pectoris."

Assistant Surgeon R. C. Kash of the U. S. Public Health Service has been relieved from duty at the Marine Hospital, Pittsburgh, and assigned to the Marine Hospital at New Orleans.

EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE.

Examination of candidates for commission as Assistant Surgeon in the Regular Corps of the U. S. Public Health Service will be held at the following named places on November 2, 1931:

Washington, D. C.
Chicago, Ill.
New Orleans, La.
San Francisco, Cal.

Candidates must be twenty-three years and not over thirty-two years of age. They must have been graduated in medicine at a reputable medical college and have had one year's hospital experience or two years' professional practice. They must satisfactorily pass oral, written, and clinical tests before a board of medical officers and undergo a thorough physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Request for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

CORRESPONDENCE.

New Albany, Miss.
September 5, 1931.

The New Orleans Medical Journal,
New Orleans, La.
Dears Sirs:

A man claiming to be Dr. H. N. Mayes of New Albany, Miss., is traveling over the States of Arkansas, Mississippi and Louisiana, swindling doctors and druggists by passing forged checks in amounts ranging from ten to fifteen dollars.

He has been to Dr. King Wade of Hot Springs, Ark.; Dr. Spitzberg of Little Rock, Ark.; Dr. Cothern of Jonesboro, Ark., and to Bauxite, Ark. He has forged checks in my name at Bogalusa, Tulula, and Baton Rouge, La. In Mississippi he has been to the Hyde Drug Store at Poplarville and to Columbia. In Meridian he tried to get Dr. W. J. Anderson to cash a check, however, Dr. Anderson was suspicious and did not do it. The last place heard from was Union, Miss. There on September 2, 1931, Dr. W. A. McMahen cashed a check for ten dollars.

Several of the doctors mentioned above have described the man as follows: About 5 feet 7 inches tall, nice looking, good complexion, dark hair, clean shaven, about 48, wore shell rim glasses

with light colored frame, and weighs about 175 pounds.

Will you please give this all the publicity you can in order that every one may be on the lookout for him, as he will, no doubt, use some other doctor's name when he goes into other States.

Thanking you, I am,

Yours very truly,

H. N. Mayes, M. D.

New Orleans Medical and Surgical Journal,
1430 Tulane Avenue,
New Orleans, Louisiana.

Dear Sirs:

The problem of Medical Economics, so ably voiced by our president of the Louisiana State Medical Society, Dr. S. C. Barrow, is an important subject and a timely topic which should be of intense interest to all members of the medical profession. Past traditions and so-called ethics have held that such commercial references should not be openly discussed by the physician imbued with altruistic principles. But modern demands make it imperative that the physician, anxious to render his patients the best of services, must be properly equipped, both with latest knowledge of medical teachings and modern scientific equipment with which to obtain the best and most efficient therapeutic results in treating patients entrusted to his care.

Dr. Barrow has called attention to another side of this economic problem—the indigent sick. I firmly believe as he does that the indigent sick should be a State or Community responsibility and not, as is so often the case, a burden which falls upon the shoulders of the already overtaxed physicians in a community. Just as an illustration, a physician is called on to care for a Red Cross case, or a destitute family. The Red Cross representative is paid; if clothes, food, hospitalization or transportation, are furnished the patient, these are all paid for! all except the physician, who does not even think of any remuneration for the services he renders. In many instances the physician is the sole responsible party and he is expected to assume all future obligations of the patient entrusted to his care without reward and in many cases not even gratitude. Why should such a condition exist? I fear we physicians are largely if not solely to blame—because we are trying to surround ourselves with the same halo of professional tradition that actuated our medical ancestors when economic conditions and demands were less exacting than they are today.

The present-day physician need not violate the ethics of his profession, induce criticism, or cause disparagement by facing the issues squarely, by demanding a just reward for services well rendered. It is high time that the members of the medical profession consider their overhead, figure a just return upon their investment—the only sound principles upon which any enterprise can exist and render efficient services.

We, of the medical profession, should, one and all, heed well his words of counsel, and stand solidly behind him in support of the principle he advocates, for only by doing so will we reap our just rewards during our years of utmost medical activity and spare ourselves and our families the embarrassment of indigency in our lean declining years.

Very sincerely,

C. A. Weiss, M. D.

WOMAN'S AUXILIARY NEWS.

It is with much pleasure that we publish the message of the president of the Woman's Auxiliary of the American Medical Association, presented at the meeting of that organization in Philadelphia, June, 1931. We include also the names of the officers elected at this meeting.

THE PRESIDENT'S MESSAGE.

The reports of the chairmen of the various national committees and of the state presidents indicate unmistakably to the Auxiliary women everywhere that as doctor's wives we have a definite sphere of influence as members of lay women's organizations. As such we may form a strong bond between the medical profession and the lay public.

Because of this possibility we shall make every effort this year to strengthen our organization both in numbers and in quality of work done.

The greatest demand made upon us is for the right kind of source material for health programs, and for health program speakers.

We are attempting to supply this information through a selected packet of literature, assembled by the Bureau of Public Information of the American Medical Association; by leaflets on communicable diseases compiled from the best recent medical literature and approved by a member of our advisory committee appointed for that purpose; by the dissemination of leaflets on "Some Contributions of Modern Medicine to the World"; by announcement of the American Medical Association radio broadcasts; and by using our best energies to promote the circulation of Hygeia.

We ask that every doctor's wife read the recommendations concerning Hygeia made to the Woman's Auxiliary by the House of Delegates of the American Medical Association. It is found on page 2116 of the June 20 issue of the Journal of the American Medical Association. Please see that your state and county medical societies also take notice of this recommendation of the House of Delegates.

Many auxiliaries are doing outstanding constructive philanthropic work such as contributing to a medical benevolence fund, assisting in hospital auxiliary work and establishing medical student loan funds.

We believe that one of the best services we can render to the medical profession is to make our state and national conventions so attractive that great numbers of our women will be enticed to attend and will influence their husbands to come.

The recent meeting in Philadelphia showed that a convention can serve such a purpose. To this end we are already planning to make the convention in New Orleans the best yet if possible and we herewith invite all the doctors' wives to come and bring their husbands.

I hope your press and publicity chairman will let me talk with you again. Always read her reports and those in the Bulletin of the American Medical Association. In the Bulletin are two pages edited this year, as last, by Mrs. Walter Jackson Freeman, our national president-elect. I commend those pages and these to you and ask your support to make our departments co-operative, useful and successful.

OFFICERS OF THE WOMAN'S AUXILIARY OF THE A. M. A.

Dr. Morris Fishbein, Illinois; Dr. J. H. J. Upham, Ohio; Dr. Olin West, Illinois; Dr. A. R. Mitchell, Nebraska; Dr. J. H. Walsh, Illinois, Advisory Council.

President, Mrs. Arthur B. McGlothlan, Missouri; President-elect, Mrs. Walter J. Freeman, Pennsylvania; Recording Secretary, Mrs. Sherman S. Hesselgrave, Minnesota; Corresponding Secretary, Mrs. James F. Owens, Missouri; Treasurer, Mrs. G. Henry Mundt, Illinois.

First Vice-President, Mrs. James Blake, Chairman of Organization, Minnesota; Second Vice-President, Mrs. James F. Percy, California; Third Vice-President, Mrs. J. Ralston Wells, Florida; Fourth Vice-President, Mrs. Robert W. Tomlinson, Delaware.

Directors: One Year—Mrs. J. Newton Hunsberger, Pennsylvania; Mrs. Ephriam R. Mulford, New Jersey; Mrs. Frank W. Cregor, Indiana; Mrs. Basil L. Connelly, Michigan. Two years—Mrs. Arthur T. McCormack, Kentucky; Mrs. Evarts V. DePew, Texas; Mrs. Willard Bartlett, Missouri.

Chairmen of Standing Committees: Program—Mrs. George H. Hoxie, Missouri; Finance—Mrs. Thomas O. Freeman, Illinois; Legislation— Mrs. Arthur A. Herold, Louisiana; Public Relation—Mrs. A. Haines Lippincott, New Jersey; Hygeia—Mrs. Rogers N. Hebert, Tennessee; Revisions—Mrs. Charles W. Garrison, Arkansas; Press and Publicity—Mrs. Milton P. Overholser, Missouri; Printing—Mrs. Samuel C. Red, Texas; Archives—Mrs. Southgate Leigh, Virginia; Historian—Mrs. Allen H. Bunce, Georgia; Parliamentarian—Mrs. William S. Tomlin, Indiana.

REPORT OF THE PHILADELPHIA MEETING.

The following report of the Philadelphia meeting was compiled by one of our most enthusiastic Louisiana Auxiliary workers, and we feel every doctor's wife will enjoy the reading of it—and may I ask our doctors to point out to their wives these bits of auxiliary news?

THE PHILADELPHIA MEETING

The National Auxiliary meeting in Philadelphia was the largest and most enthusiastic that I have ever had the pleasure of attending. Our quarters were ideal, for we had the roof of one of the best hotels for our exclusive use. This roof was a busy place. I took several doctors from Louisiana around and they all admitted that it looked as if we were "doing things."

Monday there was a preconvention board luncheon and dinner. The afternoon was given over to round table discussions of important questions. Louisiana was represented by a paper on the "Technic and Value of a Committee on Public Relations," given by Mrs. A. A. Herold of Shreveport.

Tuesday and Wednesday morning all officers, national committee chairmen and state reports were given. These reports were very stimulatng and instructive, but I am glad to say that Louisiana had as good a report as any of the States and better than most of them. These reports were absolutely required to conform to the time allotted them and if one was not through when one's time was up the rest of the report was filed. Every State Auxiliary had a report and I think this gives some idea of the interest taken in the work throughout the country.

All afternoons and evenings beginning Tuesday were filled with entertainments. These entertainments were worth-while and were all on a very elaborate scale. Every afternoon there were several and it was very difficult to choose, they were all so alluring. On Tuesday there were four trips planned, one to Valley Forge. On this trip alone there were fourteen buses with 30 women in each.

Thursday morning there was a post-convention board meeting and a general round table discussion presided over by Mrs. McGlothlan, the new national president. At this meeting the chairmen for the year were announced. Louisiana, in the person of Mrs. A. A. Herold, was given the legislative chairmanship for the national auxiliary.

One innovation made at the meeting was the organization of a junior auxiliary. This organization consisted of the doctor's daughters and it was a valuable asset to the Philadelphia meeting. The girls enjoyed getting together so much that they formed a permanent organization and the national auxiliary in the near future will start a campaign to organize junior auxiliaries in all the larger cities in the United States. I hope New Orleans will be the second city in the United States to have a junior auxiliary.

The national auxiliary now has 12,494 members. Two States are 100 per cent organized. These are New Hampshire and New Jersey.

The State Auxiliaries are doing constructive health work as well as social and philanthropic work and are making for themselves an enviable place in their respective States. Had I space I could cover many pages, but our editor even though he is most generous with space can not give us the whole Journal, so I must not go into details. Let me urge every doctor's wife in the State of Louisiana to begin now to plan to come to New Orleans in the spring to the national meeting. Also please, where there are no auxiliaries try to organize one, for Louisiana must be among the 100 per cent States when the national meeting is called to order in New Orleans in 1932.

JAMBALYA.

Monroe sends us word that at their meeting in October the nominative committee will be appointed to be followed by the election of officers at the November gathering, and it is quite certain that the good work started there will be continued.

Although the formal meeting of the Woman's Auxiliary to the Orleans Parish Medical Society will not be held until the middle of October, there have been already two informal gatherings, and extensive work is planned by the Educational Committee to inaugurate a campaign to introduce Hygeia into our public schools. This magazine is sponsored by the American Medical Association and deemed equally important by our State doctors. The standing committees for the year recently appointed by the president, Mrs. S. M. Blackshear, follow: chairman of the social group—Mrs. Ambrose Storck; chairman of philanthropy—Mrs. W. H. Seemann; chairman of education—Mrs. Ludo Von Meysenbug; chairman of courtesy—Mrs. J. Kelly Stone.

Dr. S. C. Barrow, president of the Louisiana State Medical Society, is lending his valuable assistance to auxiliary work, and with the aid of Mrs. A. A. Herold of Shreveport has organized the Fifth District in Minden. Mrs. Charles Gowen of Shreveport was elected president. Dr. Barrow has also requested, and his suggestion has been accepted, that a subscription to the New Orleans Medical and Surgical Journal be sent to each president of the various auxiliary groups. Our thanks are given to the Journal Committee for their courtesy in this matter. The Seventh District has been more or less organized by Dr. Barrow, but Mrs. Herold will do follow-up work in the fall to perfect it. It scarcely seems necessary to thank Dr. Barrow for his hearty, generous cooperation in auxiliary work—but we do—just the same.

We will have as guests at the Southern Medical Association in November in New Orleans, Mrs. A. B. McGlothlan of St. Joseph, Missouri, president of the American Medical Association Auxiliary, also Mrs. Walter J. Freeman of Philadelphia, Pennsylvania, the incoming president. Our hearty welcome is extended to these distinguished guests.

It has been definitely decided that the Louisiana State Medical Society Convention will be held in New Orleans the day prior to the American Medical Association Convention.

M. H. Musser,
State Publicity Chairman.

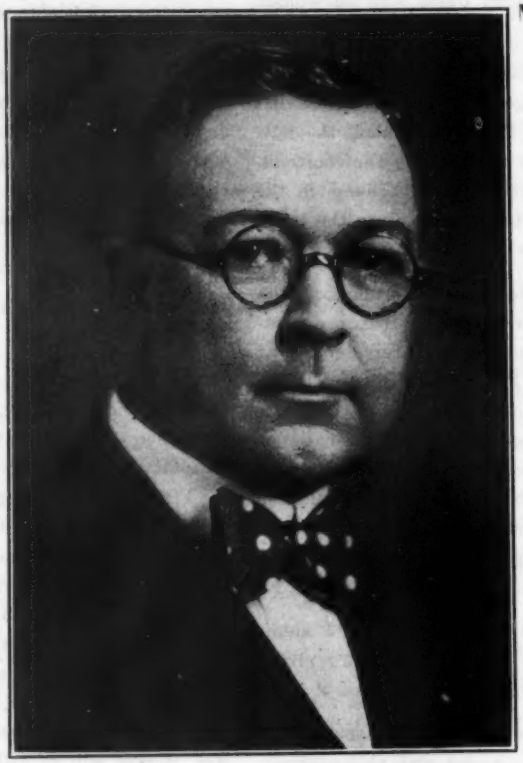
MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

L. S. Lippincott, Editor

Jacob S. Ullman, Associate Editor *D. W. Jones, Associate Editor*

THAT WE MAY KNOW EACH OTHER BETTER.

Dr. Charles Clifton Buchanan is a native of Mississippi. He was born August 22, 1887. After graduating from high school he attended the University of Mississippi and graduated from Tulane University Medical Department in 1909. He practiced medicine in Mississippi until 1916 when he moved to Houston, Texas. Dr. Buchanan was commissioned a medical officer in the United States Army in 1917, and served during the world war, ten months of his service being in France. After discharge from the Army he spent ten months in post graduate work in the Eye, Ear, Nose and Throat Hospital in New Orleans and then located in Hattiesburg. Since that time his practice has been limited to diseases of the eye, ear, nose and throat.



CHARLES CLIFTON BUCHANAN, M. D.
Hattiesburg, Mississippi.
Vice-President, Mississippi State Medical Assn.

Dr. Buchanan is a past President of the Kiwanis Club of Hattiesburg, a past president of the South Mississippi Medical Society and a fellow of the American Medical Association. He is a thirty-second degree Mason and a Shriner. He is a member of the Presbyterian Church.

CALENDAR.

October 1: Pike County Medical Society, McComb, 7:30 p. m.

October 2: Natchez Medical Club, 1 p. m.

October 5: Staff of Jackson County Hospital, 7:30 p. m.; DeSoto County Medical Society, Hernando, 10 a. m.; Staff of Meridian Sanatarium, 7 p. m.

October 6: Homochitto Valley Medical Society, Natchez, 1 p. m.; Staff of King's Daughters' Hospital, Brookhaven, 7:30 p. m.; Annual Meeting of 8th Councilor District, Natchez.

October 7: Staff of Chamberlain-Rice Hospital, Natchez; Staff of Vicksburg Infirmary, 7:30 p. m.; Staff of Rush's Infirmary, Meridian, 7 p. m.; Staff of Dr. F. G. Riley's Children and Maternity Hospital and Clinic, Meridian, 7 p. m.

October 8: Staff of Vicksburg Hospital, 7:30 p. m.

October 9: Staff of Anderson Infirmary, Meridian, 7 P. M.

October 10: Staff of Vicksburg Sanitarium, 6:30 p. m.

October 13: Issaquena - Sharkey - Warren Counties Medical Society, Y. M. C. A., Vicksburg, 7 p. m.; Staff of Natchez Sanatorium, 7 p. m.; Winston County Medical Fraternity, Louisville.

October 15: Staff of King's Daughter's Hospital, Greenville, 7 p. m.; Delta Medical Society, Moorhead, 2 p. m.

October 15: East Mississippi Medical Society.

October 16: Natchez Medical Club, 1 p. m.

October 20: Staff of Natchez Charity Hospital, 8 p. m.

October 29: Joint Meeting of North Mississippi and North East Mississippi Thirteen Counties Medical Socities, University Chapel Building, 10:30 a. m.

AN EDITOR TALKS.

In the Annals of Otology, Rhinology and Laryngology for March, 1930, Dr. George L. Richards of Fall River, Mass., the Editor for 16 years, presents some interesting observations under the title, "The Preparation of Papers on Medical Subjects: How to make them Interesting as well as Instructive—The Editor Talks." Those of us who try to read the many medical journals that come to our desks, will say, "Hear, Hear, may medical writers take notice.' Those of us who occasionally try to present a paper before our Societies or for publi-

cation will find many excellent and wise words of advice from one who knows.

By his permission, below and in the next month or two, we shall give you some of the words of wisdom from this gifted Editor and may we say, words with which we heartily agree. He says in part:

"At the outset I wish to define what I mean by the word interesting. An interesting paper on a medical subject is one that holds the hearer or the reader, as the case may be, until the end of the article. The world instructive needs no definition.

"For about sixteen years I have been your editor, and have prepared the papers from annual meetings and section meetings for publication. This has necessitated the reading of all manuscripts before publication and the twice reading of all proof as well as much correspondence.

"As a result of these years of experience, I wish to present to you some conclusions to which I have come, and to offer some suggestions which if followed will make our papers and our Proceedings more interesting and just as instructive.

"Medical literature at its best is not particularly exciting, whether presented by the human voice or through the medium of the printed page, and I am not the only person who has taken refuge in sleep during the presentation of a paper somewhat overlong and a bit prosy.

"The amount of medical literature is now so vast that even the specialist in any one department finds it impossible to cope with it. He desires to keep up with medical progress, and when his journals and reviews arrive turns to those subjects which interest him. If the article is short he quickly reads it; if it is long he either turns to the end, hoping the author has summarized his conclusions, or lays it down on his desk, thinking he will read it another day when he has more leisure. By night it is probably covered by some other journal or piece of literature and the next day is covered still deeper.

"In a few days another journal has arrived, and in the end the article never is read, even though the subject was an appealing one and by someone whose views would have commanded respect. Even the reprints which we mean to read are not read. Most of us are very busy and out of office hours like to do something else than read long articles and many case reports. Is not this in a measure the experience of all of you?

"What is the remedy? To stop writing? Not at all, but each medical author should study the art of condensing and should write for his particular audience. In papers to be presented before this or similar societies one should assume that the audience have some familiarity with the subject, and too much historical matter or the relating of what all the other writers on the subject have said, starting with Hippocrates, might well be omitted and also all the anatomy except what is necessary to make clear the points of the paper.

"At the beginning assume the audience have some knowledge of the subject, state clearly the point you are wanting to make and stop when you are through, after having briefly summarized.

"Spell the same name the same way always and do not capitalize medicines, diseases and the like, unless they bear the name of the originator. Rules as to capitals vary somewhat. It is my habit to follow the custom of the American Medical Association as to these.

"Before sending the manuscript to editor or printer read over carefully for grammar, capitals, spelling and clearness of statement.

"Always read the manuscript carefully for typewriter errors. These naturally occur, but they have to be found by the editor, who cannot depend on their being found and corrected by the printer, especially when technical matter is being set up, the meaning of which may not be clear to him. If many corrections are necessary rewrite the page.

"After the paper is written go over it and eliminate every unnecessary sentence and see that it reads smoothly. Then read it out loud to your secretary and see if you can hold her interest during the reading. This will be a fair test of how the audience will receive it."

(To be continued)

FROM OUR PRESIDENT.

"Enclosed you will find an extract from a report of the committee on Medicolegal Problems of the American Medical Association.

"While the State of Mississippi, in my opinion, is not at this time in such a position financially to take up this important work, yet I do believe that it would be a very good idea to put the matter before the physicians of the state so that they will be kept informed as to what the American Medical Association is trying to do. It is my purpose also to have this report printed in the daily papers in order to bring the matter before the laymen. If you can use this in your Journal I would appreciate it very much."

John C. Culley.

EXTRACT FROM THE REPORT OF THE COMMITTEE ON MEDICOLEGAL PROBLEMS, AMERICAN MEDICAL ASSOCIATION, JUNE, 1931.

To the Board of Trustees:

Your Committee on Medicolegal Problems respectfully submits the following report:

CRIMINOLOGIC INSTITUTES.

The detection and punishment of crime is a major problem today throughout the entire country. Experience abroad and a limited experience in the United States have shown that science can do much to aid in accomplishing those ends. Frequently the first step in the detection of crime, the identification of the living and the dead—sometimes the identification of mutilated portions of dismembered bodies—depends on anthropometric measurements, finger-prints, evidences of age, sex, race, pre-existing diseases, and old injuries, such evidence as is discoverable only by skilled pathologists. Examinations of the dead body, by inspection and autopsy, to determine the cause and time of death, call for like services. The nature and origin of stains must be accurately determined, procedures that call for scientific technique and accuracy. Vomitus, excreta, and the contents of the intestinal tract, the various tissues and organs of the body, and various substances found in and about the place of death must be analyzed to determine the presence or absence of poisons, the nature of food and drink ingested by the deceased or the accused, and so on. Inquiries must be made into the mental states of persons from whom complaints are received and of persons under arrest or on trial, whether those mental states be due to narcotic drugs, alcohol, injuries, disease, congenital defects, or insanity. Scientific investigations are necessary in connection with charges of criminal abortion, rape and infanticide. On the borderline of medicine, studies must be made to determine what relations there are, if any, between a given projectile, powder stain, powder residue, cartridge case, and weapon, and a given wound. Somewhat farther afield are studies of disputed documents, of footprints, the tracks left by vehicles, impressions of jimmies, and marks left by the use of oxy-acetylene torches and explosives in connection with safe-cracking.

The character and extent of the equipment necessary for the several purposes named in the preceding paragraph, and the character and extent of the knowledge and skill necessary for the practical utilization of that equipment in the everyday detection of crime and the punishment of criminals, are such as now preclude their utilization by the average community. Only the states themselves and in a few instances the larger cities within the states are able to finance such activities. Moreover, in the communities of average size or below, occasions for the utilization of many of the devices necessary for the purposes named and for the services of persons skilled in the use of those devices are so infrequent as to make the cost of operation unduly great, when compared with the units of work done.

The only logical procedure seems to be for each of the several states to provide and maintain the equipment and staff necessary for the service of all communities within its borders. The establishment of such agencies by the several states would in no way interfere with the establishment of similar agencies by such municipalities as need and can afford them. On the other hand, equipment and staff maintained by the state would be at the command of all counties, municipalities, towns and villages within its jurisdiction, as they might need them from time to time. The cost of such activities might well be borne by the state. If, however, the state should deem it advisable to impose a part of that cost on counties, municipalities, towns, and villages, a definite schedule of charges might well be established.

Such a state organization as has been outlined above would serve not only to aid directly in the detection and punishment of crime but also to serve indirectly toward that end by contributing toward the proper instruction of the peace officers and agencies of the state, and of every county, municipality, town, and village, in methods for the investigation of crimes and suspected crimes. Such officers and agents would be taught how best to collect and preserve such evidence as the circumstances afford and how to avoid destroying or marring essential evidence. State agencies of the type named might well have connected with them experts qualified to keep accurate records of crime and crime prevention, so as to measure the success or failure of activities for those ends.

Organizations such as have been described have been variously dubbed medicolegal institutes, criminologic institutes, and scientific crime detection laboratories. The name seems hardly material, although the name last stated is hardly broad enough to cover the true functions of such organizations.

It seems to your committee that action to promote the establishment of such organizations in each of the several states would be in the interest of good government. Your committee recommends, therefore, that it be authorized to take action toward that end, working in conjunction

with and through the Bureau of Legal Medicine and Legislation.

H. Douglas Singer
Winfred Overholser
William C. Woodward
Ludvig Hektoen
William J. Stapleton, Jr.

Approved by the Board of Trustees, June 7, 1931.

TATE COUNTY.

Sorry not to have had anything to report for some months past, but our medical society has been inactive for some months and we have no hospitals, clinics or other things of interest. Another month can give number of vaccinations in county for typhoid and smallpox as we are still doing lots of that.

I am enclosing a card giving program for a public meeting of our Society, gotten out by Dr. W. D. Smith, who is acting Secretary for the present time, as I was advised by Dr. Dye to withdraw from State and County Associations for the time in order to try to get my group insurance corrected. But seems that I have not gained anything as the insurance company has every advantage and are taking it. And what they are offering is worthless or practically so. It is bad that after so many members got into this company that they have to give up their policies, for will never be able to interest them in such insurance again.

A clinic for pre-school children was recently held at the grammar school. Examinations were made by four of the leading specialists of Memphis, assisted by local physicians. This commendable work was sponsored by the Tate County Medical Society co-operating with the Parent-Teachers Association.

J. Sidney Eason.

TATE COUNTY MEDICAL SOCIETY.

The Tate County Medical Society and the Senatobia Parent-Teachers Association held a joint meeting at Senatobia high school auditorium, Wednesday, August 26, at 8 p. m. The program included:

The Pre-School Child.—Dr. Rudolph McCormick.

Early Signs and Symptoms of Appendicitis.—Dr. Ernest Irby.

Suggestive Signs and Symptoms of Tonsils and Sinuses.—Dr. Charles Blassingame.

Necrosis; A Few Case Reports.—Dr. Ervin Boyles.

All of the above physicians are of Memphis, Tennessee.

W. D. Smith, Secretary, Pro tem.

WORLD WAR RECORDS.

Since the Association saw fit to remit the dues of all members who served in the World War, during their service, and considered that this service deserved special mention in our records, it is but fitting that the "Roll of Honor" that appeared in the TRANSACTIONS of 1918, a list of the members in service, should be included in the History.

But if it is included, it should be accurate as far as possible.

The list in the 1918 TRANSACTIONS contains some hundred and forty names. We know there were more than that. The service flag with which we presented ourselves in 1919 has four hundred stars. In accepting that flag Dr. Crawford, speaking for the service men, said that "those hundred and sixty-four Mississippi doctors wore the uniform." These figures are so widely at variance, even though Dr. Crawford's figures and the stars on the flag represent non-members as well as members, that some adjustment must be made.

The surgeons-general of the Army and Navy were asked for the names of volunteers to their respective services from Mississippi.

The Army sent a list of three hundred and eighty-nine of whom, according to our records, two hundred and fourteen were members. The Navy list was much smaller, seventeen, of whom only five were members. But already we find possible inaccuracies. The names of two who were in service, Drs. K. T. Klein of Meridian and H. R. Carr, formerly of Water Valley, and now Superintendent of the Shelby County Hospital in Memphis, are not on the Army roll. Clerical errors will happen. Quite possibly there are others. We are doing all we can to get a correct list. If the members of the Association will read it over, perhaps they may find other omissions and we will be very grateful for any help they may give us.

E. F. Howard, Historian.

MISSISSIPPI DOCTORS WHO SERVED IN THE U. S. NAVY DURING THE WORLD WAR WHO WERE MEMBERS OF THE ASSOCIATION.

Arnold, H. L., Meridian; Bennett, J. T., Meridian; Foster, R. H., Meridian; McLain, J. H., Jackson; McMorries E. D., Meridian.

MISSISSIPPI DOCTORS WHO SERVED WITH THE ARMY DURING THE WORLD WAR, WHO WERE MEMBERS OF THE MEDICAL ASSOCIATION.

Abernethy, E. G., Algonia; Acker, J. M., Jr., Aberdeen; Alexander, C. D., Vaiden; Alexander, M. J., Tunica; Allen, M., Summit; Allred, W. W., Kiln; Applewhite, R. E., Magnolia; Armstrong, J. C., Water Valley; Arrington, O. N., Brookhaven; Ash, G. G., Lexington; Austin, O. O., Harperville; Austin, R. B., Knoxo; Aycock, W. J., Hohenlinden; Backstrom, J. G., Tutwiler; Bailey, J. T., Meridian; Barksdale, J. W., Winona; Baskerville, G., Winona; Bean, V. H., Smithville; Bell, C. G., Canton; Bethea, W. R., Hattiesburg; Blount, W. N., Collins; Booth, B. H., Drew; Boswell, H. P., New Albany; Bourdeaux, T. D., Meridian; Boyd, R. M., Aberdeen; Brandon, J. W., Money; Brevard, L. H., Hernando; Brevard, S. A. Arkabutta; Bridges, M. E., Bobo; Britt, W. L., Jackson; Brock, D. T., McComb; Browne, H. L., Kosciusko; Browne, P. L., Grenada; Bryan, A. C., Sumrall; Burchfield, B. E., Ruleville; Burnham, H. M., Moss Point; Burns, E. P., Ratliff; Bush, T. J., Clarksdale; Butler, R. M., Jackson; Byrd, W. G., Isola; Carr, I. P., Clarksdale; Carruth, R. W., Chesterville; Caruthers, S. S., Duck Hill; Chamberlain, C. T., Natchez; Champenois, F., Hattiesburg; Chester, A. D., Cruger; Cleveland, T. G., Meridian; Coley, S. W., Reid; Cooper, I. W., Jr., Newton; Cox, J. W., Columbus; Cranford, W. S., Meridian; Crawford, W. W., Hattiesburg; Crisler, J., Jackson; Crothers, V. M., Lambert; Cuming, H. T., Gloster; Dameron, J. H., Meridian; Denson, E. G., Meridian; Denson, G. C., Oakvale; Dicks, J. W. D., Natchez; Diggs, G. W., Black Hawk; Dobson, W. B., Jackson; Donald, R. M., Hattiesburg; Douglas, G. F., Meridian; Edwards, C. J., Vicksburg; Elmore, R. C., Durant; Ervin W. L., Columbus; Ewing, J. S., Vicksburg; Fleming, T. Y., Minter City; Fountain, J. Q., Bay St. Louis; Fox, J. H., Jackson; Franks, V. D., Hinchcliff; Fridge, H. G., Sanford; Furr, J. E., Berlen; Gamble, P. G., Greenville; Garner, M. C., Meridian; Gastin, J. S., Laurel; Gavin, E. M., Richton; Gayden, H. D., Leland; Gibson, J. S., Crystal Springs; Gordon, E. R., McComb; Goss, F. L., Kiln; Grady, W. R., Meridian; Graves, W. R., Richton; Gray, R. E., Bude; Gray, W. P., Waynesboro; Griffin, H. E., Coffeeville; Guthrie, J. M., Meridian; Hagan, L. C., Union; Harper R. B., McBride; Harrelson, A. M., Newton; Harris, J. A., Webb; Harris, W. R., Houlka; Hart, L., Meridian; Hays, H. R., North Carrollton; Hentz, R. P., Itta Bena; Hewitt, B. J., McComb; Hightower, C. C., Hattiesburg; Hirsch, J. B., Greenville; Hollis, F. K., Gattman; Holmes, T. W., Winona; Honnoll, R. E., Rienzi; Hood, B. S., Bond; Hopper, H. P., Saucier; Houston, T. J., Meridian; Howard, E. F., Vicksburg; Hudson, L. B., Hattiesburg; Jackson, J. S. Belzoni; James, J., Ackerman; Johnson, B. F., Hazlehurst; Johnson, G. E., Hudsonville; Johnson, H. G., Dundee; Johnson, J. H., Brookhaven; Johnson, H., Biloxi; Jones, O. O., Booneville; Kennedy, J. P., Greenwood; Kitchens, L. W., Strayhorn; Kittrell, J. R., Laurel; Lanning, J. R., Corinth; Lehmberg, C. E., Columbus; Lofton, A. C., Ollie; Magee, D. W., Caseyville; Magee, J. B., Prentiss; Marshall, B. J., A. & M. College; Martin, L. H., Hattiesburg; McCalip, W. D., Yazoo City; McDevitt, J. A., Shubuta; McIntosh, J. S., Mount Olive; McKee, C. R., Wesson; McKinley, W. R., Columbus; McKinnon, H. L., Hattiesburg; McLean, E. R., Cleveland; McLeod, N. A., Brookhaven; McNair, J. C., Fayette; McNeal, A. W., Ruleville; McWilliams, C. A., Biloxi; Merritt, W. M., Boyle; Miller, C. R., Priscilla; Miller, H. R., Lamont; Montgomery, D. C., Greenville; Montgomery, G. W., Louin; Moore, D. R., Cockrum; Mosby, C. P., Meridian; Mullins, C. E., Natchez; Neal, L. B., Jackson; Neal, S. F., Marks; Newell, S. D., Indianola; Nichols, J. L., Alligator; Nichols, V. N., Carson; Nobles, E. R., Rosedale; Noel, H. L., Lexington; Norwood, C. W., Paden; O'Cain, E. C., Winona; Odeneal, E. P., Biloxi; Oliver, H. B., Sledge; Parker, E. C., Gulfport; Parkes, J. L., Batesville; Pearcer, R. S., Falkner; Pegram, R. H., Potts Camp; Pittman, C. J., Ruleville; Polk, P. R., Oakvale; Pool, W. C., Issaquena; Powell, J. E., Clinton; Primrose, J. W., Clarksdale; Rainer, J. T., Louise; Rawles, E. L., Sherard; Reid, J. S., Lamkin; Rembert, G. W. F., Jackson; Reynolds, J. M., Shubuta; Richards, W. E., Columbus; Riley, F. G., Booneville; Robinson, B. T., New Augusta; Robinson, J. C., Noxapater; Royals, T. E., Meridian; Rush, B. C., Bay St. Louis; Sayle, D. T., Torrance; Scarborough, J. F., Laurel; Scott, W. W., Erwin; Seay, T. H. Laurel; Shivers, E. E., Boyle; Simmons, J. D., Gunnison; Slack, J. A., Friars Point; Smith, D. S., Rodney; Sparkman, A. A., Cleveland; Speck, C. M., New Albany; Smith, J. D., Laurel; Smith, T. J., Meridian; Spivey, G. H. Hollandale; Sproles, H. F., Vicksburg; Steen, J. H., Vaughan; Stephenson, R. M., Lexington; Stewart, N., Jackson; Storm, G. R., Phillip; Strain, T. A., Meridian; Street, A., Vicksburg; Strong, R. A., Pass Christian; Tackett, J. R., Meridian; Toomer, W. A., Tupelo; Touchstone, A. G., Moss Point; Trotter A. G., Greenwood; Ullman, J. S., Natchez; Waldrop, H. G., Bethany; Wall, J. P., Jackson; Wallace, J. E., Biloxi; Walley, D.,

Richton; Warren, G. T., Brookhaven; Wells, S. T., Alligator; Westmoreland, J. D., Taylor; White, J. C., Jr., Hazlehurst; Wicks, A. F., Okolona; Wiggins, J. T., Merigold; Wilson, E. P., Houston; Wilson, J. W., Wanilla; Wilson, J. J. Coldwater; Woodward, J. I. Picayune.

HOMOCHITTO VALLEY MEDICAL SOCIETY.

Attention is called to the members of the Homochitto Valley Medical Society, and for that matter all medical societies in Mississippi, that the annual dues must be paid by January 1, 1932, as all secretaries are required to turn in their reports on February 1, to the State Association. This is urged upon the members, especially in suits of malpractice, as the State Association will only recognize applications for protection provided dues are paid.

The Homochitto Valley Medical Society will hold its regular quarterly meeting on Thursday, October 8, in Natchez, at 2 p. m., for the election of officers for the ensuing year.

Lucien S. Gaudet, President.

EIGHTH COUNCILOR DISTRICT.

The Eighth Councilor District Medical Meeting will be held in Natchez, Tuesday, October 6, on the Roof Garden of the Eola Hotel, with the following program beginning at noon:

1. Dinner.

2. Address.—Dr. J. W. D. Dicks, Natchez, Councilor, Eighth District.

3. The Community Hospital.—Dr. J. C. Culley, Oxford, President, Mississippi State Medical Association.

4. Medical Education in Mississippi.—Dr. P. L. Mull, University, Dean, University of Mississippi Medical School.

5. The Surgical Significance of Splenomegaly. —Dr. Isadore Cohn, New Orleans, Louisiana.

6. Constitutional Symptoms of Gynecological Origin and Treatment of Causative Conditions.— Dr. T. B. Sellers, New Orleans, Louisiana.

7. A Case of Bow-Legs (Moving Pictures).— Dr. Alphonse H. Myer, Memphis, Tennessee.

J. S. Ullman, M. D.

BOLIVAR COUNTY.

Dr. and Mrs. L. B. Austin, Rosedale, have returned from a vacation spent in Chicago.

Dr. E. R. McLean, Cleveland, one of the chief members of the Delta Medical Society and a leading physician of Cleveland, we are glad to report, was recently nominated for sheriff of Bolivar County. He is now recuperating from a strenuous campaign in the I. C. Hospital in Chicago, and his friends hope to welcome him home at an early date.

The physicians and surgeons of the County are very much interested in the County Health Unit of Bolivar County. We recognize that expenses of all political organizations must be cut, but are endeavoring to prevent such a drastic cut as would hurt the efficiency of the organization. Every citizen of the County is interested and we hope to secure sufficient funds to at least keep the unit properly functioning.

The King's Daughters' Hospital at Rosedale has been crowded to more than capacity for the past month. Two beds were in most of the rooms and cots were placed in the halls. Of course, charity patients predominated, but all were well and efficiently cared for.

The doctors of the county all have sent expressions of sympathy to Dr. C. W. Patterson over the death of his mother, which occurred at Port Gibson, on August 12 last. She was 82 years of age and a sweet mother now in Heaven. Dr. Patterson expresses his gratitude for the many expressions of sympathy and good wishes of his friends.

C. W. Patterson, County Editor.

JACKSON COUNTY.

No vacations by any of our members, Mr. Editor, except our County Health Officer, Dr. R. G. Lander, who visited his brother, Dr. Ed. Lander of Victoria, Texas, and went fishing. Leaving the Mississippi Gulf Coast to fish in Texas! What do you think of that?

The regular meeting of the Jackson County Medical Society was held at the Jackson County Hospital on Sept. 7, at 7:30 p. m., and Dr. J. H. Baumhour of Mobile, Ala., read a paper on "Food Allergy in Children," which was enjoyed by all present.

Analysis sheets submitted from time to time show that the amount of work done at the Jackson County Hospital is greatly in excess of what was anticipated in this length of time when it was opened Feb. 1, 1931.

Your correspondent from Holmes County, claiming the first county owned hospital, is mistaken, as Jackson County was the first county to get authority from the Legislature to own and operate a hospital and was also the first to open.

S. B. McIlwain, County Editor.

HINDS COUNTY.

The Central Medical Society met at the Edwards House at 7:30 p. m., Sept. 15, after a vacation of two months. The first half hour was devoted to clinics, after which the following program was presented:

Surgery in Diabetes.—Dr. M. Brister Ware.

Complications of Malaria.—Dr. Levi B. McCarty.

Angina Pectoris.—Dr. T. E. Wilson.

The Handling of Cardiac Cases in Private Practice.—Dr. O. G. Eubanks.

Refreshments were served.

Since our last report, two new doctors have located in Jackson. Dr. W. G. Berry, who formerly practiced general medicine at Cruger, has opened an office in the Standard Life Building, giving special attention to electro-therapy and roentgen-ray. Dr. J. M. Townsend, who formerly practiced general medicine at Morton, has opened an office in the Standard Life Building, and will devote his time to general practice and genito-urinary and kidney diseases.

Dr. W. L. Hughes, secretary of the Central Medical Society, is at the Sanitarium, taking a rest-course. Dr. R. W. Hall is acting secretary in his place.

Most of our doctors who have been on vacations have returned, and the regular staff meetings of the different hospitals will now be resumed.

D. W. Jones, M. D.

A WARNING.

THE BANK OF NEW ALBANY,
New Albany, Mississippi

Suguar 26, 1931.

Dr. T. M. Dye,
Clarksdale, Mississippi.

Dear Dr. Dye:

I understand that you are Secretary of the Mississippi State Medical Association and as a warning, I give you the following:

A party is forging checks on Dr. H. N. Mayes of this city, writing all the checks for $15.00 each. When he goes to a town or city he seems to get in communication with a doctor or drug store and has them to either endorse or cash the checks. He claims to own a small Hospital in New Albany and that he has run short of funds while doing some work in the territory where the check is cashed.

The first check was endorsed by Dr. Thad Cothern at Jonesboro, Arkansas. A day or two later he managed to get two checks of the same amount cashed at Little Rock and on Friday the 21st one for the same amount at Baton Rouge, Louisiana.

I thought you might get this information to the Medical Association, advising all the doctors to be on the lookout for him.

Very truly yours,

(Signed) J. L. Spence, Cashier.

ISSAQUENA COUNTY.

Dr. T. A. Heath of Shiloh, dean and patriarch of the medical profession in Issaquena, who has been a constant sufferer from chronic articular rheumatism of the knee for several years, is better of the trouble just now.

Dr. J. B. Benton of Valley Park, master politician of Issaquena doctors, has made several trips to Vicksburg of late to perfect himself in that difficult art.

Dr. T. W. Huey, of Grace, always quiet and affable, stays at home, steadily sawing wood, and coining the elusive dollars, while others are gallivanting around having a good time.

Dr. W. H. Scudder of Mayersville, another spiring politician, collected a small fee last week and immediately blew it in on a trip to Memphis on Labor Day. He very wisely bought a round trip ticket, or he might not have gotten back yet.

W. H. Scudder, County Editor.

WOMEN'S AUXILIARY.

The Women's Auxiliary of the Issaquena-Sharkey-Warren Counties Medical Society met at the Carnegie Library in Vicksburg, Tuesday, Sept. 15. Those present were Mrs. E. F. Howard, president; Mrs. E. H. Jones, secretary; Mrs. W. C. Pool, Mrs. B. B. Martin, Mrs. P. S. Herring, Mrs. J. S. Ewing, Mrs. A. Street, Mrs. L. S. Lippincott, Mrs. M. H. Bell and Mrs. W. H. Parsons.

The Constitution and By-Laws, presented at the last meeting, were read by sections and set for final adoption at the October meeting.

Mrs. Bell made an interesting report of the proposed work of the Anti-tuberculosis Association, for which she is the Warren County president. She presented plans for the care of incurable cases that cannot be admitted to the Sanatorium and a committee was appointed to study them.

Mrs. Martin reported on the entertainment recently given to the nurses of the city and read some votes of thanks from the several organizations.

In the absence of Mrs. C. J. Edwards, chairman of the clean-up week, Mrs. Bell reported that the committee had cooperated with those of the other organizations taking part in this activity.

Due to the absence of Mrs. Jack Birchett, there was no report from the committee on Hygeia.

Mrs. A. Street, a committee to purchase garments for the Red Cross, presented a letter of thanks from that organization.

The secretary presented a letter from Dr. Lippincott, secretary of the Issaquena-Sharkey-Warren Counties Medical Society, thanking the Auxiliary for serving the supper at the July meeting of the organization.

Mrs. George Street made an interesting report on the meeting of the Auxiliary of the American Medical Association at Philadelphia in June.

On invitation of Mrs. Pool, representing the Sharkey County members, the Auxiliary decided to hold its next meeting, Oct. 20, at the residence of Mrs. H. S. Goodman at Cary.

It was reported that the Auxiliary had contributed $2500 to the preventorium fund for the Sanatorium.

Mrs. E. H. Jones, Secretary.

NORTH MISSISSIPPI MEDICAL SOCIETY.

The next meeting of the North Mississippi Medical Society will be held at the University, Thursday, Oct. 29, This will be a joint meeting of the North Mississippi Thirteen County Medical Society and all of the doctors of North Mississippi as well as any others of the State are cordially invited to attend this meeting.

The purpose of this union meeting is to give the doctors of this section of the State an opportunity to visit the University of Mississippi Medical School and to see the numerous fine buildings that have been completed recently. The new hospital is almost completed and will be a point of interest for the doctors.

Several noted men from out of the State are expected to be on the program, among them Dr. W. S. Leathers, former dean of the University Medical School.

We are planning a big time and are expecting all of the doctors and their wives to meet with us at 10:30 a. m., Thursday, Oct. 29, at University, Mississippi, Chapel building.

A. H. Little, Secretary.

NORTHEAST MISSISSIPPI THIRTEEN COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Northeast Mississippi Thirteen County, Medical Society was held at the Gilmer Hotel, Columbus, on Tuesday, September 15, beginning at 2 p. m. The program included the following:

1. Meeting Called to Order.—Dr. C. E. Boyd, President.

2. Invocation.—Dr. T. B. Bateman, First Presbyterian Church.

3. Reading and Adoption of Minutes of Last Session.

4. Ureteral Strictures, Symptoms, Diagnosis and Treatment.—Dr. L. C. Feemster, Jr.

Discussion opened by Drs. Morris and Philpot.

5. Function of the Faucial Tonsil.—Dr. D. W. Hamrick.

Discussion opened by Drs. Dickson and Dodson.

6. Tuberculosis of Infancy and Childhood with Reference to Early Diagnosis and Tuberculin Reaction.—Dr. S. P. Wainwright, Birmingham.

7. The Business Side of Medicine.—Dr. B. C. Tubb.

Discussion opened by Drs. G. S. Bryan and J. W. Lipscomb.

8. Business Session.

A banquet was served at the Gilmer Hotel at 6 p. m. J. M. Acker, Jr., Secretary.

EAST MISSISSIPPI MEDICAL SOCIETY.

The East Mississippi Medical Society met at the Elks Club, Meridian, Thursday, October 8, at 3 p. m. The following program was rendered:

1. Address.—Dr. F. J. Underwood, Executive Officer, Mississippi State Board of Health.

2. Pneumonia.—Dr. P. E. Holliday.

3. Sodium Amytal.—Dr. K. T. Klein.

T. L. Bennett, Secretary.

PONTOTOC COUNTY.

News is very scarce now, except we are having quite an epidemic of diphtheria scattered around over the country.

The Northeast Mississippi Thirteen County Medical Society met at the Gilmer Hotel, Columbus, on Tuesday, September 15.

R. P. Donaldson, County Editor.

TISHOMINGO COUNTY.

Dr. A. E. Bostick, after having practiced for many years at Golden in the extreme southern portion of Tishomingo County, has moved to Iuka, the county seat, where he will have greater opportunity of doing good. We congratulate the people of Iuka and community.

Edith Esther, daughter of Dr. and Mrs. K. F. McRae, Belmont, was married at the home of her parents on August 9, to Mr. John Spurgeon Bishop of Clarksdale. After a motor trip through the mountains of East Tennessee and points of interest in Georgia, they returned to Clarksdale, where Mr. Bishop is connected with the Bank of Clarksdale. K. F. McRae, County Editor.

ADAMS COUNTY.

Dr. G. H. Butler, who for the past year or more has been assistant superintendent of the Natchez Charity Hospital, has resigned and is succeeded by Dr. B. J. Whittington, from Baroness Erlanger Hospital, Chattanooga, Tennessee.

Miss Wilhemina Howell, technician at the Natchez Charity Hospital, has resigned to accept a position in Laurel. Mr. Fred Geisenberger, a student at L. S. U. and Washington University, will succeed Miss Howell as superintendent of the laboratory.

Mrs. Ethel B. Marsh, public health nurse of Adams County, is spending her vacation as guest of the Carter Hunting Club in Alexandria, Louisiana. Mrs. Marsh will leave about the middle of September for Cleveland, Ohio, where she will take some work in public health nursing at Western Reserve University. She was awarded a scholarship by the Commonwealth Fund of New York.

Mr. George Dicks, son of Dr. J. W. D. Dicks, and Mr. Lee Sessions, son of Dr. R. D. Sessions, have returned from Baton Rouge, Louisiana, where they attended the summer session of L. S. U. Mr. Dicks will leave later in the fall to attend Vanderbilt University and Mr. Sessions will resume his studies at L. S. U.

Dr. L. C. O'Ferrall returned recently from Covington, Louisiana, where he motored for a visit through the week end with members of his family, who are spending the greater part of the heated term in Covington.

Dr. J. D. Shields is expressing his thanks and appreciation to the voters of the county for honoring him with election as representative for the district outside the city of Natchez. He has promised his honest endeavors and to give the best that is in him.

Dr. L. B. McLaurin recently spent a few days in Jackson, where he was joined by his daughter, Miss Lillian McLaurin, on her return from a stay of two months at Camp Nakanawa at Mayland, Tennessee. Miss McLaurin accompanied her father back to Natchez.

Dr. and Mrs. J. W. Chisolm had as their guests for several days recently Mrs. Chisolm's brother, Mr. T. H. Montgomery of Tallulah, Louisiana.

Dr. and Mrs. Marcus Beekman have had as their house guest Mrs. Beekman's brother, Mr. Stephen Triche of New Orleans.

Miss Myra Smith of Chicago is making her annual visit at Devereaux with her brother and sister-in-law, Dr. and Mrs. Raymond Smith.

Miss Lillian Hornsby, who recently graduated from the Natchez Sanatorium, is now making her home with her aunt, Mrs. Joseph Kaiser.

Mrs. Daniel Scharff of Charlotte, N. C., is visiting her parents, Dr. and Mrs. Philip Beekman. Mr. Scharff accompanied his wife to Natchez from New Orleans where they had been visiting with his parents, Mr. and Mrs. I. D. Scharff, but remained for a stay of only a few days.

An interesting event of August was the annual banquet of the Adams County Registered Nurses Association, which was held in the private dining room of White's restaurant. A business meeting and election of officers preceded the banquet. Twenty members of the Association attended the affair.

On August 12, a surprise shower and bunco party was given by the nurses of the Natchez Sanatorium complimentary to Miss Lola Seals who was recently married to Captain Thomas Radigan. The spacious living room of the Nurses' Home in Franklin Street was the scene of the interesting gathering which included twenty or more of the friends of the honoree.

L. Wallin, County Editor.

MADISON COUNTY.

I didn't get a letter to you last month as I was on a trip to the Mayo Clinic, Chicago, and Memphis with Dr. M. L. Flynt of Newton, and his two boys, Mayo and M. L. Flynt, Jr. We had a very pleasant and instructive trip.

Miss Juanita Russell of the King's Daughters' Hospital staff at Canton, is home on a vacation following an operation for gall stones. She is recovering nicely.

Dr. John B. Howell, Canton, is back at work and in good health again following a gallbladder operation.

A. P. Durfey, County Editor.

BAPTIST HOSPITAL, JACKSON.

Dr. T. J. Crofford, Lampton Building, Jackson, is the editor in chief of the Baptist Hospital Staff.

Harvey F. Garrison, M. D.

HOUSTON HOSPITAL.

The regular monthly staff meeting was held at the Houston Hospital, Thursday evening, August 27, at 8 o'clock.

The meeting was called to order by the Chairman, Dr. W. J. Aycock, Derma. Dr. E. L. Richardson read a very interesting paper on "Acidosis," which was followed by a general discussion from all the doctors present.

The medical discussion was followed by a musical program, rendered by Misses Harris, Atkinson, Turner and Patterson of Houlka.

Light refreshments were served by the student nurses, after which the meeting adjourned to meet again the last Thursday night in September.

V. B. Philpot, M. D.

YAZOO COUNTY.

We are all deeply grieved to hear of the death of Dr. Smithson.

No news with the Yazoo doctors. Dr. Roberts met a mule in the road; mule kept road; auto and doctor turned over; doctor broken rib. Am glad to say he was up next day, I mean the doctor.

C. M. Coker, County Editor.

DR. W. W. SMITHSON.

Dr. W. W. Smithson, Jackson, former State Health Officer, died at Jackson, September 9, 1931, of carcinoma of the stomach and liver, at 57 years of age.

Dr. Smithson was a native of Thomastown, Mississippi. He received his education in the common schools of the state and graduated at the Mississippi A. and M. College before taking his medical course at what is now the University of Tennessee. He had postgraduate work at the Rush Medical College and Johns Hopkins University. He first located in Kosciusko, later removing to Durant and then to West, before settling permanently in Jackson where he quickly established himself as a successful practitioner. While at West he married Miss Meta Moore. Their one son, Claude Taylor, was born in West in 1904, two years before the family moved to Jackson.

During a comparatively short career of public professional work, Dr. Smithson served as executive secretary of the Mississippi State Board of Health, and in 1913, by appointment of Governor Earl Brewer, became head of the Misisssippi Insane hospital, a position which he held for four years.

After resuming private practice, he was connected with the old Jackson Sanatorium which later consolidated with the Jackson Infirmary, of which Dr. Smithson was vice-president at the time of his death.

Dr. Smithson has been prominently identified with the civic, social and fraternal life of Jackson during his long residence there. He was a member of the Capitol Street Methodist church. Until ill health interferred, he was an active member of the Kiwanis Club and the Jackson Chamber of Commerce. He was a Mason, a Shriner, a member of the W. O. W., and of the Knights of Pythias. He was vice-president of the Country Club at the time of his death.

Dr. Smithson's professional connections included membership in the Central Medical Society, the Mississippi State Medical Association, and the Southern Medical Association. He was a fellow of the American Medical Association.

DEATHS OF MISSISSIPPI DOCTORS.

William Thomas Hunter, Decatur, apoplexy and hemiplegia; at Decatur, June 2, 1931. Born Mississippi, February 3, 1872.

Dr. J. H. Newcomb, secretary of the Southern Mississippi Medical Society has sent to the Journal two resolutions on the death of active members of this organization.

W. Gregg Gill, Newton; undulant feever; Aug. 20, 1931, at New Orleans, La. Born Clinton, Miss., Sept. 24, 1881.

RESOLUTIONS OF THE SOUTH MISSISSIPPI MEDICAL SOCIETY.

The South Mississippi Medical Society was shocked to learn of the untimely death of Dr. T. Gandy, one of its active members, on January 31, 1931. Dr. Gandy combined with unusual intelligence, sound judgment and extreme devotion of his patients. He possessed a most agreeable and friendly personality, which endeared him to associates and patients alike.

The Society feels his loss very keenly and, therefore

Resolves: To spread upon its minutes these sentiments of its love and respect for the departed member, and further

Resolves: To express to his widow and his children its heart-felt sympathy, and further

Resolves: That in token thereof a copy of these resolutions be forwarded to the New Orleans Medical and Surgical Journal, and another to his widow and children.

Signed:

T. E. Ross, Jr.
H. C. McLeod,
J. P. Culpepper, Jr.,
Resolutions Committee.

The South Mississippi Medical Society was grieved to hear of the untimely demise of Dr. John S. Adams, who, in His infinite wisdom, Almighty God has taken from our midst in the prime of his active life. His professional skill, enthusiasm, and lovable personal qualities endeared him to all with whom he came in contact.

The Society hereby places on record its deep regret at the loss of Dr. Adams, and therefore

Resolves: To spread upon its minutes these sentiments of its regard for the departed member, and further

Resolves: To express to his widow, his children, his mother, his brother, Dr. J. E. Adams, other members of the family and his many devoted friends, its most heart-felt sympathy, and further

Resolves: That in token thereof a copy of these resolutions be forwarded to the New Orleans Medical and Surgical Journal, another to his widow and children, another to his mother, and another to his brother, Dr. J. E. Adams.

Signed:

T. E. Ross, Jr.
H. C. McLeod,
J. P. Culpepper, Jr.,
Resolution Committee.

DESOTO COUNTY MEDICAL SOCIETY.

The Desoto County Medical Society held its annual open meeting at the Hernando School Auditorium, August 10, at 8 p. m. The public was cordially invited to attend.

The program included the following:

Invocation.—Brother C. C. Weaver.

Reading.—Miss Jessie Entrikin.

Address.—Honorable E. N. Wilroy.

Piano Selection.—Miss Eugenia Nichols.

Address.—Goitre and Other Abnormal Conditions of the Thyroid Gland.—Dr. W. C. Chaney, Memphis, Tennessee.

Announcements.—Dr. C. W. Emerson, President.

On invitation, several members of the Tate County Medical Society were present.

The program was interesting and instructive and was enjoyed by a goodly number.

The Mississippi section of the Journal is getting better each month.

L. L. Minor, Secretary.

RUSH'S INFIRMARY, MERIDIAN.

The regular staff meeting was held at Rush's Infirmary, Meridian, on September 3, at 7 p. m. The program was as follows:

1. Motion Picture (3 reels)—Treatment of Infections of the Hand.—Dr. Allen B. Kanavel, Chicago.

Dr. Kanavel covered the condition in a most practical manner, demonstrating thoroughly the surgical anatomy of the hand and forearm, diagnosis, the regions affected by infections, the proper incisions for drainage of abscesses, the dangers of improper handling, treatment of infections of the hand, after treatment, physiotherapy and restoration of function.

2. Infections:

Tetanus and its Treatment.—Dr. D. L. Walker.

Erysipelas and its Treatment.—Dr. E. B. Key.

Gas Bacillus Infection and its Treatment.—Dr. H. Lowry Rush.

3. Case Reports:

Perforated Wounds.—Dr. Leslie V. Rush.

Stab Wound of Neck. Pyogenic Infection. Portion of Knife Blade Removed from Laminae of Third Cervical Vertebra two Weeks after Injury.

Traumatic Aneurysm of Femoral Artery from Bullet Wound. Treated by Ligation of the External Iliac Artery.

Perforated Wounds.—Dr. H. Lowry Rush.

Knife Wound of Shoulder With Gas Gangrene and Pyogenic Infection. Severe Secondary Hemorrhage Three Weeks After Injury.

Stab Wounds of Abdomen with Laceration of the Liver.

4. Large Stone of the Kidney Pelvis Which Was Passed 18 Months after Discovery.—Dr. D. L. Walker.

Dr. Julian T. Bailey is President of the Staff and Dr. T. L. Bennett, Secretary.

LAUDERDALE COUNTY.

Dr. T. D. Bourdeaux is slowly improving at his home, 2423 23rd Avenue, Meridian, after an operation performed at Dallas, Texas.

There were present at the staff meeting of Rush's Infirmary 34 physicians. Refreshments served!

The East Mississippi Medical Society sustained a great loss in the death of Dr. W. G. Gill of Newton very recently. Flowers were sent and funeral attended by several doctors from Meridian and elsewhere.

Dr. T. J. Googe, Superintendent of the Commonwealth Health Fund in Lauderdale County, has moved into commodious quarters at 25th Avenue, between 9th and 10th Streets.

Charles T. Burt, County Editor.

WARREN COUNTY.

Dr. M. H. Bell is back in his office after having enjoyed a two months' vacation.

Dr. W. E. Akin has enjoyed a week's vacation, visiting in Yazoo City and Allison Wells.

Dr. I. C. Knox is out of the city on his vacation. He expects to spend some time in the clinics at Nashville, Tennessee, and also to visit relatives.

Dr. Charles J. Edwards has recovered from an operation for osteomyelitis of the left tibia and has returned to his office.

Edley H. Jones, County Editor.

VICKSBURG HOSPITAL.

A meeting of the staff of the Vicksburg Hospital was held on August 13, at 7 p. m.

The meeting was called to order by the President, Dr. G. P. Sanderson, with Drs. I. C. Knox, W. H. Parsons, W. G. Weston, H. W. Weimar, and W. E. Akin present. The program included:

1. Minutes of the preceding meeting read and adopted without change.

2. Analysis of the work done in the hospital during the past month, roentgen-ray report, laboratory report, medical and surgical reports discussed freely.

3. Scientific program presented as outlined. There was free discussion.

4. The question of the filing system of cases according to etiological classification is to be discussed at the next staff meeting.

5. Refreshments were served and meeting adjourned.

Edley H. Jones, Secretary.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held on September 8, at the Y. M. C. A., Vicksburg. The scientific program included:

1. Malaria Prevention. — Dr. J. E. Quidor, Vicksburg.

Discussed by Drs. J. A. K. Birchett, Jr., G. W. Gaines, and G. M. Street. Dr. Quidor closed.

2. The Scope of Allergy.—Case Report.—Dr. Edley H. Jones, Vicksburg.

Discussed by Drs. J. E. Quidor and L. S. Lippincott. Dr. Jones closed.

3. The Use of Diuretic Drugs in the Treatment of Advanced Cardiac Failures.—Dr. W. G. Weston, Vicksburg.

Discussed by Drs. L. J. Clark and S. W. Johnston. Dr. Weston closed.

4. Mucous Colitis. Dr. Nathan Lewis, Vicksburg.

Discussed by Drs. W. H. Parsons, S. W. Johnston, G. M. Street, and R. H. Foster. Dr. Lewis closed.

Drs. William Edwin Akin, Jr., Vicksburg, Walter E. Johnson, Vicksburg, and Robert H. Foster, Anguilla, were unanimously elected to membership in the Society.

Seventeen members and three visitors attended the meeting. A dutch lunch was served.

The next meeting of the Society will be held Tuesday, October 13, at 7 p. m. The program will be in charge of a committee consisting of Dr. S. W. Johnston, Vicksburg, Chairman; Dr. W. C. Pool, Cary; Dr. G. W. Gaines, Tallulah, Louisiana, and Dr. J. A. K. Birchett, Jr., Vicksburg.

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY.

The semi-annual meeting of the Society will be held at Clarksdale on November 4, beginning at 7 P. M. with a dinner and carrying right on into the program. The Secretary, Dr. D. V. Galloway, being away for some post-graduate work at Harvard where he was awarded a scholarship for efficient work with the Board of Health, Dr. E. LeRoy Wilkins is acting Secretary of the Society. These meetings are usually well attended and there is always a helpful rogram.

Dr. J. W. Henderson, for many years a practicing physician of Clarksdale, died on September 10 at 8 P. M., at his home. Dr. Henderson was injured in an automobile accident about a year ago, and while he was abole to be about his office some since that time, he had never fully recovered. He leaves a wife, two married daughters and one son, J. W., Jr., who is a high school student.

Dr. J. W. Gray, a physician since the city was a small landing on the Sunflower river, who was in an automobile accident about two months ago, was able to be brought from the hospital tnd the care of a bone specialist in Memphis, to his home and is doing nicely.

A dissolution of the partnership of Drs. A. B. Carney and J. L. Levy has been announced to take effect October 1. Dr. Carney buying out Dr. Levy's interest in the Garney-Levy Clinic. Dr. Levy will move to an uptown office building.

E. LeRoy Wilkins.

VICKSBURG SANITARIUM.

The regular monthly meeting of the staff of the Vicksburg Sanitarium and Crawford Street Hospital was held on September 10, at 6:30 p. m., with eleven members of the staff and three visitors present. After that presentation of reports from the records department and analysis of the work of the hospital, the following special case reports were made:

1. Carcinoma of the Ovaries. — Dr. G. M. Street.

2. Renal Tumor with Pulmonary Metastases.— Dr. A. Street.

3. Thyrotoxicosis.—Dr. L. J. Clark.

The following selected radiographic studies were demonstrated: Hypertrophy of inner table of frontal bone; Spontaneous pneumothorax; Pulmonary tuberculosis; Lung abscess; Cholelithiasis; Carcinoma of the esophagus; Nephrolithiasis.

The meeting closed with a lunch.

MISSISSIPPI STATE HOSPITAL ASSOCIATION.

Dr. Clyde M. Speck, New Albany, Secretary, reports that the membership of the Mississippi State Hospital Association, as of September 1, now the largest since its organization, includes the following institutions of the State: Biloxi Hospital, Biloxi; Northeast Mississippi Hospital, Booneville; King's Daughters' Hospital, Brookhaven; Madison County King's Daughters' Hospital, Canton; Field Memorial Hospital, Centreville; Columbia Clinic Hospital, Columbia; Fite Hospital, Columbus; McRae Hospital, Corinth; King's Daughters' Hospital, Greenville; Grenada General Hospital, Grenada; King's Daughters' Hospital, Gulfport; Methodist Hospital, Hattiesburg; South Mississippi Infirmary, Hattiesburg; Houston Hospital, Houston; Jackson Infirmary, Jackson; Mississippi Baptist Hospital, Jackson; Laurel General Hospital, Laurel; McComb City Hospital, McComb; Anderson Infirmary, Meridian; Natchez Sanatorium, Natchez; Mayes Hospital, New Albany; New Albany Hospital and Clinic, New Albany; Newton Infirmary, Newton; Bramlett Hospital, Oxford; Oxford Hospital, Oxford; Martin Sanatorium, Picayune; Oktibbeha Hospital, Starkville; Vicksburg Infirmary, Vicksburg; Vicksburg Sanitarium and Crawford Street Hospital, Vicksburg; Water Valley Hospital, Water Valley; Ivy Hospital, West Point; Winona Infirmary, Winona.

An active Fall program of work is being mapped out. It is desired that every reputable hospital in the State become affiliated with the Association in order to bring about the accomplishment of the greatest good for the greatest number.

Applications for membership should be sent to Dr. Speck.

EFFICIENCY RECORD—COUNTY EDITORS.

Based on items furnished for the Journal in the five months since the meeting of the Mississippi State Medical Association in May.

80 Per cent.

L. Wallin, G. S. Bryan, R. P. Donaldson, E. H. Jones, M. L. Montgomery, C. M. Coker.

60 Per Cent

T. J. Brown, A. P. Durfey.

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C. A. Pender, W. N. Jenkins, W. L. Little, G. H. Woods, L. J. Rutledge, W. C. Pool, K. F. McRae, W. H. Curry.

20 Per Cent

J. J. James, C. McCall, W. H. Scudder, B. S. McIlwain, C. T. Burt, W. H. Frizell, J. W. Lipscomb, J. S. Hickman, S. A. Majure, R. B. Cunningham, W. D. Smith.

Zero — Naught — Nothing Per Cent.

J. R. Hill, P. Jackson, F. Ferrell, J. A. Hardin, J. P. T. Stephens, W. C. Walker, S. R. Deanes, A. V. Richmond, C. E. Mullins, C. M. Shipp, A. G. Wilde, H. C. Elmore, N. W. Nannery, R. B. Harper, F. E. Linder, B. S. Waller, A. J. Stacy, D. R. Moore, S. S. Caruthers, J. D. Green, H. L. Scales, H. N. Holyfield, W. C. Anderson, S. E. Dunlap, C. M. Murry, H. P. Boswell, B. L. Crawford, S. E. Field, G. A. Brown.

NO COUNTY EDITORS.

The following counties have not yet any county editors, due to failure of Society presidents to make appointments: Bolivar, Clark; Coahoma, Covington, Forest, George, Greene, Humphreys, Jasper, Jefferson Davis, Jones, Kemper, Lamar, Leake, Leflore, Marion, Pearl River, Perry, Quitman, Simpson, Smith, Sunflower, Tallahatchie, Tunica, Washington, Wayne.

HONOR ROLL FOR OCTOBER.

Your editors express their appreciation of the co-operation of the following good people in the make-up of the present number of our Journal:

C. C. Buchanan, J. C. Culley, J. Sidney Eason, W. D. Smith, E. F. Howard, L. S. Gaudet, J. S. Ullman, C. W. Patterson, S. B. McIlwain, D. W. Jones, T. M. Dye, W. H. Scudder, A. H. Little, Mrs. Edley H. Jones, Mrs. E. F. Howard, J. M. Acker, T. L. Bennett, K. F. McRae, R. P. Donaldson, L. Wallin, A. P. Durfey, Harvey F. Garrison, V. B. Philpot, C. M. Coker, L. L. Minor, Charles T. Burt, E. H. Jones, G. M. Street, L. J. Clark, W. G. Weston—30.

BOOK REVIEWS

Operative Gynecology: By Harry Sturgeon Crossen, M. D., and Robert James Crossen, M. D. 4th ed. St. Louis, C. V. Mosby Co. 1930. pp. 1078.

This fourth edition of Crossen's Operative Gynecology is infinitely more than a text-book; it is, in fact, a ready reference book for the practicing gynecologist. In his preface, the author clearly brings out the trend of modern gynecology and very properly lays great emphasis on conservatism.

The text is admirably illustrated and the descriptive matter is very lucid. Four additional chapters have been added, and the one dealing with anesthesia is well worthy of note.

The reviewer is of the opinion that this volume is one of exceptional merit, very complete in every detail and is to be recommended both to the student and the gynecological surgeon.

WALTER EDMOND LEVY, M. D.

Hypertension: By Leslie T. Gager, M. D. Baltimore, Williams & Wilkins Co. 1930. pp. 158.

Arterial hypertension as a primary disorder of vasomotor function is the theme of this book. The causative factors, the clinical manifestations and sequelae, and particularly the study and management of hypertension are presented from the standpoint of functional pathology. This is a valuable addition to the much needed monographic contributions in a brief, concise summary of a subject of current interest in which little is known of the origin. The appended bibliography of over 500 titles will afford keys to the major literature of hypertension, for the further study of particular points. A complete subject index as well as an index of personal names is included. Chapters on the definition, historical background, and hypertension in relation to renal disease are worthy of mention. The functional bases of hypertension, chemical factors, incidence, interesting records with tables and charts are presented for study. Symptomatology, clinical studies, studies of the eyegrounds, variability and height of blood pressure and prognosis are discussed. The longest chapter is on treatment. The use of general measures, diet and drugs are completely presented, with a bibliography of especial value which gives a complete resume of present knowledge on the subject. Many misimpressions based on single cases and small groups in the literature are discriminatingly and unassumingly discussed and corrected. This book would be a valuable addition to any physician's library.

I. L. LOCASCIO, M. D.

Nutrition and Diet in Health and Disease: By James S. McLester, M. D. 2d ed. Philadelphia, W. B. Saunders Co. 1931. pp. 891.

The second edition of this admirable text embodies certain necessary additions and revisions to this rapidly progressing department of medicine.

Written for the needs of the general practitioner it is very complete and detailed. Two chief headings are considered, namely, "Nutrition in Health" and "Nutrition in Disease."

In the latter division the various diseases in which diet is a factor are separately dealt with. Food necessities are enumerated and tabulated menus furnished. Each chapter is followed by a complete bibliography, conveniently grouped as to subject matter contained.

The third part of the text contains many valuable charts and tables.

The work is well planned and well written, and should prove useful to every practitioner, regardless of specialty.

WILLARD R. WIRTH, M. D.

A Century With Norfolk Naval Hospital—1930-1930: By Richmond C. Holcomb, M. D., F. A. C. S. Portsmouth, Va., Printcraft Publishing Company. 1930. pp. 543.

"The Norfolk Hospital," admits author Holcomb, "is the dean of the U. S. Naval Hospitals and few hospitals through the country can boast of an equal age and tradition of service. It has a distinguished service through four wars—the Mexican, War between the State, Spanish-American and Great War." This volume commemorates its one hundredth anniversary. It tells of the first settlement of the land, the commercial importance of tobacco and the part the weed played as a medium of exchange. Well is described old Fort Nelson, the building of the hospital and John Havilland, the yellow fever epidemic, the effects of the four wars, the Corps school and the present glorious institution.

With pride Dr. Holcomb prints a list of those who have served as officers of the Medical Corps

during the past century, many of whom gained renown in the field of medicine and in war. *Sic ait:* "One may glance through the list. Barton, Wales, Browne, Van Reypen and Stitt became surgeons generals. There are names of men who served with distinction during the Mexican War and the War between the States. Jackson, Henderson and Taylor, all ran the batteries at Vicksburg. Some, like McCreery and Conway, were lost with their ships. Ambler died in the fozen wilderness of Lena Delta on the Jennett expedition. Langhorne was wounded in far off Philippine Islands, and others served with distinction in the Great War and possess foreign as well as American decorations."

MAURICE SULLIVAN, M. D.

Recent Advances in Medicine: By G. E. Beaumont, M. A., D. M., F. R. C. P., and E. C. Dodds, M. V. O., M. D., Ph. D., B. Sc. Philadelphia, P. Blakiston's Son & Co., Inc. 1931. pp. 442.

Seldom is one able to find as much concentrated and worth while up to date information as is contained in this small volume. It is the sixth edition of Dr. Beaumont's and Dr. Dodd's exceptionally good little book. Because of its size all the recent important advances in medicine cannot be included of course. However, the authors have selected a few tremendously important advances and have described them tersely and well. Consisting of twenty-five brief chapters it deals with: general clinical investigations, the kidneys, glycosuria and diabetes mellitus, pancreatic function, hepatic function, the stomach, basal metabolism, the heart, the lungs, cutaneous protein tests and desensitization, tests for diphtheria and scarlet fever, the nervous system and cerebrospinal fluid, special blood and urine examination and analyses.

The chapters dealing with the heart and lungs deserve special mention.

MAURICE SULLIVAN, M. D.

Genetics and Eugenics: By W. E. Castle. Cambridge, Harvard University Press. 1930. pp. 474. 4th rev. ed.

This is the fourth edition of an originally excellent work, inclining somewhat more toward animal than toward plant genetics. It contains a number of revisions made necessary by advances in the subject between 1925 and 1930. A short chapter on "Human Inheritance in General" has been added, and the chapter on human "Physical Inheritance" has been greatly enlarged. The well-selected bibliography has been brought up to 1930.

H. N. GOULD, Ph. D.

The Genetics of Domestic Rabbits: By W. E. Castle. Cambridge, Harvard University Press. 1930. pp. 31.

This little monograph describes the numerous fancy breeds of rabbits, with a genetic analysis of their characteristics. A general knowledge of Mendelian heredity is pre-supposed. The plates show photographs of 39 different hereditary types. There is no index.

H. N. GOULD, Ph. D.

Recent Advances in Pulmonary Tuberculosis: By L. S. T. Burrell, M. A., M. D. (Cantab), F. R. C. P. (Lond.). 2d ed. Philadelphia, P. Blakiston's Son & Co. 1931. pp. 240.

In view of the vast literature on this subject, an author who can present the principal trends of advance with clarity, conciseness and intelligence, deserves particular recognition. The subject matter is admirably presented. The content shows broad reading and much personal experience. The chapter on Pneumothorax is unusually good. The volume merits the attention of all interested in tuberculosis.

I. L. ROBBINS, M. D.

International Medical Annual, Vol. 49, 1931. New York, William Wood & Co. 1931. pp. 551.

This year book of medical and surgical diagnosis and treatment is an excellent reference book. The distinguished editors and contributors assure the reader of a thorough, comprehensive and critical review of the progress of medicine during the year. The subject matter is treated alphabetically and a complete and sensible index is appended. There are many good illustrations. The important facts in each article are printed in heavy type. The editorial remarks upon several of the subjects constitute one of the important contributions to the volume.

I. L. ROBBINS, M. D.

Breast-Feeding: By Margaret Emslie, M. D., Ch. B. London, Oxford Univ. Pr. 1931. pp. 142.

With the myriad books already written on the artificial feeding of infants it is refreshing and timely to see this monograph champion nature's way. One would think that such a book would hardly be necessary, but since the trend is so dis-

tinctly toward the bottle, every medical man should read it and learn its lesson.

I am reminded of that passage in one of Oliver Wendell Holmes' medical essays, written in 1867, wherein he states with his inimitable brilliance: "A pair of substantial mammary glands has the advantage over the two hemispheres of the most learned professors' brain, in the art of compounding a nutritious fluid for infants."

This little book takes into consideration the anatomy and physiology of the breast, the establishment and management of breast feeding, the difficulties in breast feeding and the indications for weaning.

Illustrations and charts are provided.

L. VON MEYSENBUG, M. D.

Gould's Medical Dictionary: By George M. Gould, A. M., M. D. Edited by R. J. E. Scott, M. A., B. C. L., M. D. 3rd ed. Philadelphia, P. Blakiston's Son & Co. 1931. pp. 1538.

The third edition of this splendid dictionary appears in a new format and with a considerable number of additional words added to those which appeared in the earlier editions. The actual number of words added to this edition is not given, but the editor states that there are many hundreds of them. There are also incorporated three new tables of pathogenic bacteria, metazoa, and protozoa.

Gould's dictionary is a splendidly edited volume. Apparently all the new words that have come into medicine in the last few years have been included, to judge by a rather cursory search for words which were thought possibly too new to be incorporated in the edition. The makeup of the book is excellent. The printing is clear and distinct, while the appearance, bound as it is in a dark blue leather cover, makes it a volume which would do credit to any physician's desk.

J. H. MUSSER, M. D.

The Physician of the Dance of Death: By Aldred Scott Warthin, Ph. D., M. D., LL. D. New York, Paul B. Hoeber, Inc. 1931. pp. 142.

Fateful the fact is that this book concerning death and the physician should have been written in the shadow of death. Confined to his bed by the first warning of the malady which was soon to terminate his life, Dr. Warthin assembled many pictures and old prints, the collection of which had been his life-time avocation. One wonders if, while compiling his data, he were not cognizant of the Grim Reaper stalking near by, intent upon taking from his studies just as Death summoned the doctor in the prints he was analyzing. Hurriedly, perhaps a little too hurriedly, he got together his subject matter, wrote his book. It is a scholarly work but certainly no masterpiece. Enjoyable as it is, one cannot overlook many of the criticisms which are pedantic and lack wit. It is regrettable that such a wealth of material could not have been more ably developed.

From all the characters in the numerous Dance of Death motifs the author singled out the physician and studied the mutation of attitudes displayed by the artists of different centuries. He showed the doctor of the fifteenth century represented as a dull, ignorant, bigotted chap who forever gazed into a flask of urine and from a contemplation of the contents therein diagnosed the patient's ailments and prescribed accordingly. The indictment of quackery accompanied the urine gazing medico. Such a modus operandi allowed a wide range of interpretations. It made diagnosis a matter of fanciful speculation which unfortunately failed to impress the laity even then. At that time the doctor's social status was not an enviable one. He came about eighteenth or twentieth in the scale of social rating. Anteceding him usually were pope, kaiser, cardinal, king, patriarch, constable, archbishop, knight, bishop, nobleman, abbot, warden, astrologer, burger, domherr, merchant, Carthusian, sergeant, monk and userer. This order varied but the physician always came far behind the better regarded personages of society.

When Holbein appeared he dealt less harshly with our poor profession. His doctor was a more intelligent type, he read a book (apparently he had an elementary education, perhaps he could count to 50). His face was kindly, he had a pet dog. The author interpreted the possession of a dog as meaning that he was a friendly soul; one wonders if his doctor might have had an investigative trend. Still the crystal ball (his bottle of urine) was not forsaken. Long established institutions, no matter how unworthy, are hard to abandon. But he did appear less a knave than previously and perhaps some of his patients invited him to Sunday dinner occasionally. His predecessor looked like the sort of fellow who would steal the silver from your table.

Little by little the physician gained more respect, more repute. But up until the nineteenth century he was still a subject of some derision and ridicule. Gradually he came into his own, enjoyed a position worthy of his calling and the public considered him not a quack but a virtuous and learned man. This transition Warthin developed extremely well and the sources from which he culled his information are multitudinous.

The book begins with the Period of the Great Wall Paintings, the earliest of which was that of the Cemetiere Aux Innocents in Paris (1424). Then came the Pre-Holbein Block Books and Incunabula followed by Holbein in the sixteenth century, the Imitators of Holbein and the Rococo period, the period of Caricature(the most delightful of all) and finally the modern Dance of Death.

MAURICE SULLIVAN, M. D.

Discovering Ourselves: A View of the Human Mind and How It Works. By Edward A. Strecker, A. M., M. D., and Kenneth E. Appel, Ph. D., M. D. New York, The Macmillan Co. 1931. pp. 306.

An advanced manual of mental hygiene with a psychological basic element. The authors are well known in the neuropsychiatric world. The book is divided into two parts and twenty one chapters, the first division deals with the conception of modern psychology and the intimacies of body and mind through the consciousness, sub-consciousness and unconsciousness.

The second division is explanatory of the psychology of every day life, the conflicting urges of thought, feeling and action. The descriptive explanations of these are gone into thoroughly from every angle. Much stress is laid on the passages regarding extroversion and introversion, with the conversion concept receiving much consideration. Transference and symbolism with their importance is likewise given an important place. The inferiority complex together with self-expression receive commendable interpretation. The volume closes with the sublimation or socializing of our instincts. The volume is well written, excellently printed with much material therein which should be of interest and benefit to neuro-psychiatrists and those connected with agencies handling conduct and behavior problems.

It would likewise make excellent reading matter for those who specialize in psychology, whether normal or abnormal. The enigma arises: After discovering ourselves are we satisfied?

WALTER JOSEPH OTIS, M. D.

PUBLICATIONS RECEIVED.

W. B. Saunders Company, Philadelphia: The Practice of Medicine, by A. A. Stevens, A. M., M. D., Third Edition. Gonorrhea in the Male and Female, by P. S. Pelouze, M. D., Second Edition. A Text-Book of General Bacteriology, by Edwin O. Jordon, Ph. D., Tenth Edition.

The Williams & Wilkins Company, Baltimore: Yellow Fever, by Henry Rose Carter, M. D., Annals of the Pickett-Thomson Research Laboratory.

Oxford University Press, New York: The Diagnosis and Treatment of Venereal Diseases in General Practice, by L. W. Harrison, D. S. O., M. B., Ch. B., F. R. C. P. E., Fourth Edition. Dynamic Retinoscopy, by Margaret Dobson.

The Manual Arts Press, Peoria: Tables of Food Values, by Alice V. Bradley, B. S.

American Medical Association, Chicago. Simple Lessons in Human Anatomy, by B. C. H. Harvey, M. D.

The Southern Surgical Association: Transactions of the Southern Surgical Association, Volume XLIII, by Robert L. Payne, M. D.

Thacker, Spink & Co., Calcutta: Indian Medical Research Memoirs, by I. M. Puri, M. S., Ph. D., F. E. S.